

THIRD SERIES VOL 55 NUMBER 4

FEBRUARY 1948

# THE JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

66 PORTLAND PLACE LONDON

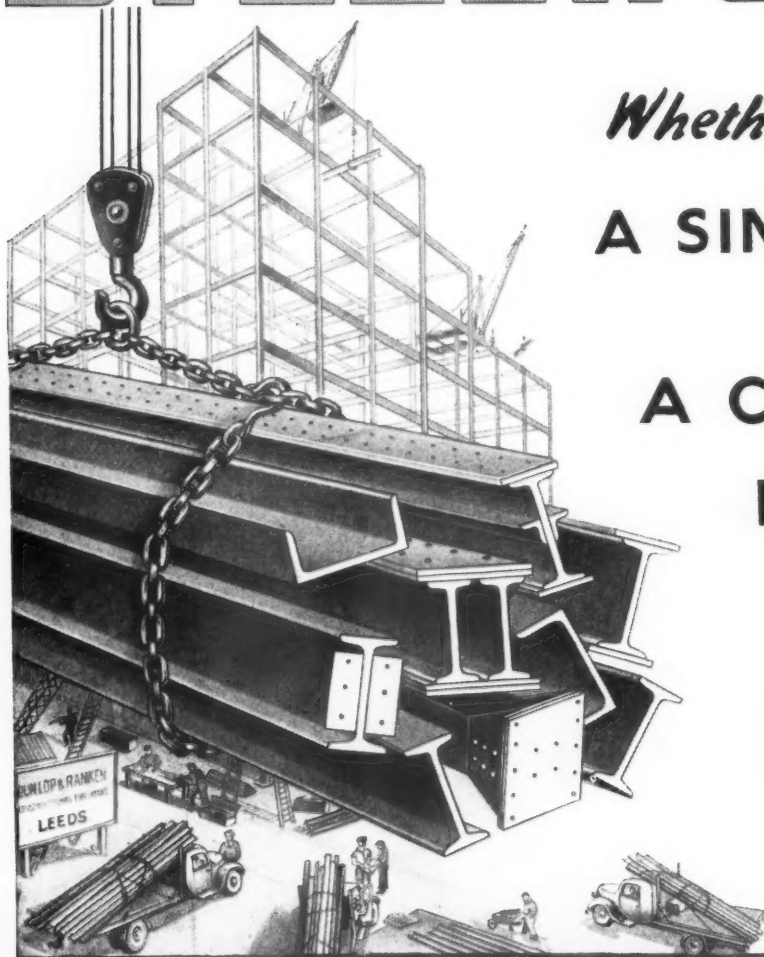


TWO SHILLINGS AND SIXPENCE



*In the village of Hope, South Devon. From a photograph by Reece Winstone, A.R.P.S.*

# STEELWORK



*Whether you want*  
**A SINGLE JOIST**  
**OR**  
**A COMPLETE**  
**BUILDING**

*Try*  
**D&R**  
**STEELWORK**  
**SERVICE**

# DUNLOP & RANKEN

TELEPHONE 27301 (20 LINES)  
TELEGRAMS SECTIONS LEEDS

LIMITED  
**LEEDS**



# THE JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

THIRD SERIES VOL 55 NUMBER 4 : FEBRUARY 1948 : 66 PORTLAND PLACE LONDON W1 : TWO SHILLINGS & SIXPENCE

137 EDITORIAL	162 REVIEW OF CONSTRUCTION AND MATERIALS	174 CORRESPONDENCE
139 THE ROYAL GOLD MEDAL	164 CHOICE OF STRUCTURAL TYPE AND ITS CLADDING—R. LLEWELYN DAVIES	175 OBITUARIES
140 RECENT PLANNING DEVELOPMENTS IN THE COLONIES—SIR FRANK STOCKDALE, R. GARDNER-MEDWIN AND S. M. DE SYLLAS	169 THE ARCHITECTS' AND SURVEYORS' APPROVED SOCIETY	176 NOTES FROM THE MINUTES OF THE COUNCIL
149 ARCHITECTURE OF THE U.S.S.R.	170 PRACTICE NOTES	177 NOTES AND NOTICES
153 R.I.B.A. PRIZES AND STUDENTSHIPS 1948	171 BOOK REVIEWS	181 MEMBERSHIP LISTS
		184 MEMBERS' COLUMN

## Charles Reilly

We regret to record the death of Professor Sir Charles Reilly. Particulars of his career will be found on page 175. An obituary appreciation of him by Professor L. B. Budden [F] will be published in the March JOURNAL.

## R.I.B.A. Spring Exhibition

This year's major exhibition by the R.I.B.A. is to be on school design. Entitled 'Schools Tomorrow', the exhibition will be opened by the Minister of Education, the Rt. Hon. George Tomlinson on 25 May, and will be open to the general public from 26 May to 19 June inclusive. It is intended for those members of the lay public who are specially interested in the subject and who already have some knowledge of it, such as teachers and members of local authority education committees. A group of members is already busy on the project. There will be five sections: Historical; Legislation; General Planning and Design; Furniture, Equipment and Decoration; and Technical. The Council of Industrial Designing is collaborating with the R.I.B.A. on the Furniture and Equipment section. A Handbook, which will give supplementary information and be usable for reference, is being prepared. Because this exhibition will be a full summary of progress to date it will be of outstanding interest to architects, and will in addition show how well the architect has been able to interpret the new Education Act.

## Christmas Holiday Lectures

The Jarvis Hall and Foyer were filled to capacity when over five hundred boys and girls heard Mr. Richard Sheppard [F] give this year's holiday lectures on *The Making of Architecture*. Requests for tickets far exceeded the available accommodation, and the audience showed its keenness by turning up in even larger numbers to the second and third lectures than to the first—a sure sign that the talks were appreciated. Slides were used to illustrate the lectures, which compared the methods of building in the Middle Ages and the centuries which followed with present-day construction and techniques, and showed how different types of architecture resulted from the use of varying materials in different parts of the world.

An innovation this year was the setting aside of a short time for questions. These came thick and fast without prompting, and ranged from queries relating to the life of 'prefabs' and the use of sculpture on buildings to the distinctive features of Byzantine architecture! The answers to the questions were obviously enjoyed, many of the salient points being seized upon for further discussion. This year's series has been certainly one of the most successful.

## The Library Group

The first meeting of the recently-formed Library Group took place on 12 January in the Aston Webb Room. There was a good attendance to hear Mr. Grahame B. Tubbs [A] talk on Piranesi, examples of whose drawings and engravings covering all periods were displayed round the room.

It is intended that meetings shall be held on the second Monday in every month, the subjects being as follows:

Monday, 9 February, 6 p.m. Display of English Source-books of the Georgian period.

Monday 8 March, 6 p.m. Display of rare items in the possession of the R.I.B.A. Library.

Monday 12 April, 6 p.m. Drawings, prints and books illustrating the works of William Kent. Introduction by S. Rowland Pierce [F].

Monday 10 May, 6 p.m. Early prints of London.

Details of the Group's aims and activities may be obtained from Mr. H. A. Bowen [A], 426 Staines Road, Twickenham.

## R.I.B.A. Canteen

A canteen situated on the second floor is available for the use of members who may be visiting the Institute. Luncheon is served between 12 noon and 2 p.m.

All members of Council and Committees of the Institute are registered as members of the canteen and are thus entitled to purchase alcoholic drinks with their meals. Other members of the Institute may register as members for this purpose on application to the Assistant Secretary.

Tea may be served to members in the Members' Room between the hours of 3.45 p.m. and 5 p.m.

A telephone connected with the canteen is installed in the Members' Room for the purpose of ordering tea.

The canteen is closed on Saturdays and Sundays.

## British School Planning and Design in the U.S.A.

The Ministry of Education has despatched by air to America a selection of over 100 drawings, plans and photographs of recent or contemplated school buildings. They will form part of an exhibition on School Planning and Design, which is to be a feature of this year's annual meeting of the American Association of School Administrators arranged for 21 to 26 February at Atlantic City. It is expected that 10,000 leading American educators will attend the meeting. Other countries have been invited to make similar contributions to the exhibition. The British selection was made from exhibits at the recent Conference on School Planning and Design at the R.I.B.A. in London.

### Central Housing Advisory Committee

Sir Lancelot Keay, K.B.E., President, R.I.B.A., has been re-appointed by the Minister of Health to serve for a further term of three years on the Central Housing Advisory Committee.

### The City and Borough Architects' Society

This new Society was inaugurated at a meeting at the R.I.B.A. on 30 January, and a provisional committee and officers were elected. As its name implies, the Society exists to study the architectural problems peculiar to urban local authorities and it is complementary to the already existing County Architects' Society. The Society will collaborate fully with the R.I.B.A., with the special aim of extending the influence of the profession in local government circles. Detailed particulars are given on page 181.

### Films

Two years ago the Institute's Films Committee was re-established as a Sub-Committee of the Public Relations Committee. During the war period great advances were made in the use of films for instructional purposes, and the Committee had therefore to find out in the first instance where it stood in what was virtually a new field. It proceeded to do this by making contacts with film producing companies interested mainly in the production of documentary and instructional films, and with associations such as the Scientific Film Association, the Federation of Documentary Film Units and latterly with the new National Committee for Visual Aids in Education, which is linked with the Ministry of Education.

It was also thought wise to make a preliminary survey of films that had already been made on architecture, building and planning, and then to summarize and appraise the contents of each film so that information could be readily available at the Institute concerning films of this type. This information, it was thought, would prove of value to allied societies, student associations, schools, and all film groups interested primarily in the showing of technical and general films in the architectural field. A good deal of information has been collected in this way, and is being constantly augmented. On the whole the number of good films on the above-mentioned subjects is disappointingly small; this in part may be attributable to lack of demand and also in part to the non-availability of cine-projection equipment. It is, however, only reasonable to suppose that as more equipment becomes available the demand for good instructional films will increase.

It is proposed to publish in the JOURNAL critiques of films, both technical and general, which the Films Committee feel would be of interest to members. The appraisals will deal not only with films recently produced, but will also cover the best pre-war films. Running times and other details will be given, and also places from which the films may be hired.

### R.I.B.A. Golfing Society

The attention of all members is drawn to the fact that the Golfing Society has been revived and that arrangements are being made for the holding of four meetings during 1948 at venues within reasonable rail access of the centre of London, as well as fixtures with other societies.

All those wishing to join, including members of the Society who have not already been contacted, are asked to apply to the Hon. Secretary, Mr. E. H. Firmin [A], 111 Park Street, London, W.1.

The Annual Subscription is 10s.

The following officers have been elected for 1948:

*President:* Sir Giles Gilbert Scott, R.A. [F].

*Committee:* *Captain:* John Grey [F], W. R. F. Fisher [F], H. St. John Harrison [F]. *Hon. Treasurer:* R. B. Selby [F], 19 Berkeley Street, W.1. *Hon. Secretary:* E. H. Firmin [A], 111 Park Street, London, W.1.

### Rural Industries Bureau

One of the main activities of the Rural Industries Bureau, set up by the Development Commission to help small industries in the countryside, has been to assist the brickyards making fine quality facing bricks and tiles, particularly the sand-faced hand-made variety. The Bureau has specialists who advise yards on up-to-date methods of production, kiln and drying shed design, etc. Unfortunately many of these small yards lack selling facilities and the Bureau has to help by arranging such an exhibition as it held at the Building Centre last year.

The recent curtailment in national expenditure has hit these yards and they are accumulating stocks. As they are in a small way they cannot afford to hold them for very long. Unless they dispose of their stocks fairly quickly many of them will go out of business, and once closed it is unlikely they will reopen again. The danger is that in a few years' time, when building is in full swing once more, there may be a sad absence of hand-made facing bricks. When one considers that such buildings as Westminster Hospital, Battersea Power Station, and the new Colleges of the University of London have been faced with them, it may mean that cities as well as rural and urban areas will suffer.

The Bureau has made a survey of yards making hand-made bricks and tiles throughout the country and it is at present being brought up to date. Any architect who wants particulars of the yards in his area can have them by applying to the Rural Industries Bureau, 35 Camp Road, Wimbledon, S.W. 19.

It is proposed to arrange a permanent exhibition of brick panels from all the yards in each county at some convenient centre so that architects or others interested will have a reference. Also, if any individual architect would like an opinion on quality, one of the Bureau's specialists will visit and advise him.

### Aerial Photographs for Town Planning

The Ministry of Town and Country Planning has issued the following particulars regarding the availability of photographs for use in town planning: *Ordnance Survey Mosaics. Scale 1:1250:* The programme covering 24 towns has now been almost completed and the mosaics are available through the normal O.S. agents at a cost of £1 per sheet. *Ordnance Survey Mosaics. Scale 1:10,650:* This is a new series which will cover most large towns in Britain. No sheets are available as yet but some are expected to be available shortly, the cost will be £1, each mosaic obtainable from O.S. agents. *The Ministry of Town and Country Planning Library:* A considerable amount of photography has been added this year and it is anticipated that the basic 1:10,000 scale National Survey will be completed shortly. A certain amount of cover on scales of 1:2,500 and 1:5,000 of certain towns has been completed and a further 30 towns will be added this year. Oblique photography of a large part of the coast and of several towns is also being provided in this year's programme.

Regional Libraries now have substantial parts of the available cover of their region and the whole should be completed this year. The photographs of the Ministry Library are available for inspection by planners and others. Loan facilities have been withdrawn, but local authorities may purchase copies of photographs at the nominal charge of 5d. per print. Procedure is as follows: L.A. representatives select the cover they require either at the H.Q. or Regional Offices of the Ministry. A demand for the prints quoting sortie and print numbers should be addressed to Air Ministry (S.6), Whitehall, S.W.1, and forwarded together with a covering letter (stating urgency and purposes for which photographs are required) to the Ministry of Town and Country Planning (Air Photographs Officer), 6 to 9, Berkeley Street, W.1. Prints cannot yet be supplied to authorities other than local planning authorities. The photographs supplied to L.A.'s are passed for security, but the recipients are responsible for their safe custody and use by responsible persons only.



### The Royal Gold Medal for Architecture

His Majesty the King, on the recommendation of the Council of the Royal Institute, has awarded the Royal Gold Medal for 1944 to Auguste Perret. The Medal is conferred annually on a distinguished architect or man of science or letters, who has produced work advancing the knowledge of architecture.

The reputation of Auguste Perret as a modern architect and an exponent of reinforced concrete design is world-wide among architects. It was in 1922-23 that his reinforced concrete church at Le Raincy startled both the architectural and ecclesiastical worlds by its frank expression of the system of construction and its stern refusal to echo design forms which had almost become a ritualistic tradition. Though shocked, church architects of the time had to admit its supreme honesty as a design and its merits as a structural expression in its own right. Since then, change in architectural thought has accepted it as a worthy pioneer effort and it has had many followers. Earlier, Perret had shown that he was not bound by accepted ideas when he designed the Champs Elysées theatre in 1911. At that time there was almost a precise Beaux Arts formula for theatre design. Perret disregarded this and struck out on a line of his own based, so far as the interior went, on acoustic and sight-line requirements. Again his ideas have been followed and developed. Up to the present day Perret has continued to design and build prolifically. His recent Museum of Public Works, near the Trocadero, shows the feeling for proportion that he has retained from his Beaux Arts training and his willingness to experiment.

Born in 1874, Perret, after studying at the Ecole des Beaux Arts, first entered his father's business as a builder, together with his two brothers. In 1903 he built a house in the Rue Franklin, Paris, as his first work on his own as an architect. His garage at Ponthieu in 1906 is as modern as anything built today. Shell concrete, today regarded as something of a novelty, was used by Perret in the Casablanca docks in 1915. In recent years he has built the Music Hall in the rue Cardinet, as well as factories, flats, villas, and monuments. In 1947 he replanned the Marignane Airport. Today he is as busy as ever and yet finds time to run a Beaux Arts atelier for 160 students.

Perret's influence on the development of modern architecture has been profound and is well recognized by British architects. A great gathering may therefore be expected on 6 April when he will personally receive the Royal Gold Medal from the President.

#### Mr. G. Grey Wornum

Mr. George Grey Wornum [F] has been elected an Honorary Corresponding Member of the American Institute of Architects.

#### Journal—Index and Binding—Volume 54

It will be possible to provide a limited number of bound volumes as in previous years at the following prices:

Buckram bound volumes, 10s. 6d. plus 9d. postage.

Paper bound volumes, 4s. 6d. plus 9d. postage.

Buckram binding cases, 6s. plus 6d. postage.

Early application is essential, and it is necessary for members wishing to take advantage of this service to return the loose numbers in good condition.

#### Cricket 1948

The following all-day fixtures have been arranged:

Wednesday 23 June. The Architectural Association, at Elstree.

Sunday 11 July. The Surveyors, at Elstree.

Sunday 25 July. The Blue Circle Sports Club, at Snaresbrook.

Members wishing to play in any of these matches are asked to notify Mr. Douglas Taylor [A] at 24 Dean Street, Oxford Street, W.1. Mr. Taylor has written to the Secretary of the A.A. thanking the A.A. Council for their permission to use the Association's Elstree ground for the first two matches.



Auguste Perret, Royal Gold Medallist 1948. The President will present the medal to Mons. Perret on Tuesday 6 April at 6 p.m.

#### Town Planning Appointments

Mr. Gordon Stephenson, M.C.P., B.Arch., A.M.T.P.I. [F] has been appointed to the Chair of Civic Design at Liverpool University and has resigned his appointment as Chief Planning Officer (Planning Technique) of the Ministry of Town and Country Planning.

Mr. R. T. Kennedy, A.M.T.P.I. [A], formerly Senior Regional Planning Officer (Acting) (Planning Technique), has been promoted to the post hitherto held by Mr. Stephenson.

#### The Builder

His many architect friends will regret to learn that Mr. G. J. Howling [Hon. A] has had to resign the editorship of THE BUILDER owing to ill-health. The directors have, however, retained him as consultant, and he will contribute regularly to the editorial pages. His successor is Mr. Ian M. Leslie, J.P., who joined the editorial staff in 1926, and who has been Assistant Editor for many years. To him we offer our congratulations and best wishes.

#### R.I.B.A. Diary

TUESDAY 24 FEBRUARY 6 P.M. General Meeting. *The Influence of Technical Research on Design and Methods of Building*. M. Hartland Thomas, M.A. [F].

TUESDAY 9 MARCH 6 P.M. General Meeting. *The American Scene*. Howard Robertson, M.C., S.A.D.G. [F].

TUESDAY 23 MARCH 6 P.M. A.S.B. Lecture. *Air Hygiene* Dr. T. Bedford, D.Sc., Ph.D.

WEDNESDAY 3 MARCH—SATURDAY 20 MARCH 11 A.M.—7 P.M. (SATURDAYS 11 A.M.—5 P.M.). Exhibition at R.I.B.A. of Architecture of the U.S.S.R. (See page 149 of this JOURNAL.)

# Recent Planning Developments in the Colonies

Papers by Sir Frank Stockdale, G.C.M.G., C.B.E., Adviser on Development Planning, the Colonial Office; R. Gardner-Medwin, B.Arch., A.M.P.T.I. [A] and S. M. de Syllas [A] Read before the Royal Institute of British Architects on 27 January 1948. The President in the Chair

**Sir Frank Stockdale:** This evening it is proposed briefly to review recent planning developments in the Colonies prior to a more detailed description of the position in the West Indies by Mr. Gardner-Medwin, and of the position in Barbados by Mr. de Syllas. My general review must, in consequence, be short and very general in character. It will relate to housing and town planning.

During the past ten years considerable attention has been given throughout the Colonial Empire to slum clearance, housing improvement and town and country planning generally. The war held up action in many territories, and in some areas additional problems of over-crowding were created during the war period because of movements of populations and the curtailment of normal building expansion. In Malta, the Far East and some of the islands of the Western Pacific considerable war damage was suffered, and during the past two years rehabilitation and reconstruction have had to receive first priority.

Some progress in regard to housing and town planning was, however, made during the war period, and the pace has greatly quickened during the past two years. A considerable number of surveys and plans has been made. For the two years ended in May last a total of 45 architects and planners were selected for service in Colonial territories by the Appointments Department of the Colonial Office, and I might perhaps mention here that a lady from Ceylon has recently qualified for the Associateship of the Royal Institute of British Architects. Mr. Dawbarn has been selected as the architect for the new West Indian University College now being planned in Jamaica, and Mr. Maxwell Fry is to be entrusted with the work in connection with the proposed University College in Nigeria. The Secretary of State has appointed Professor William Holford as Honorary Architectural Adviser to the Colonial Office.

Before proceeding to review recent developments, it may be useful if I give you some information about recent changes in Colonial legislation relating to housing and planning. After all, the foundation for successful housing and planning development is adequate legislation.

Trinidad was the first Colonial territory to pass comprehensive legislation relating to housing and slum clearance and to town and regional planning. This legislation was passed in two Ordinances in April 1939, and these Ordinances were based on the English Town and Country Planning Act of 1932 and the Housing Act of 1936, with

such modifications as local circumstances and conditions of living made necessary. Progressively, Colonial territories have adopted comprehensive legislation of a similar character. Most of the West Indian Colonies now have legislation similar to that of Trinidad. Sierra Leone passed its legislation, also based on the Trinidad model, in 1943, to be followed by the Gold Coast and Nigeria in 1945 and Fiji and the Seychelles in 1946.

Legislation of a similar character is at present under consideration in Nyasaland, and in Uganda a Town and Country Planning Ordinance has recently received its second reading in the legislature and is before a Select Committee. Housing legislation of a comprehensive character was passed in Kenya in 1943.

In 1946 the Government of Northern Rhodesia established a new Department for Local Government and African Housing, as a result of the recommendations of a Commission which considered African housing, and mention should perhaps also be made here of the appointment by the Central African Council of two Standing Committees—one to deal with African housing and the other with town and country planning. These Committees are engaged upon the preparation of a housing manual for use in Central African territories, and the Committee on Town and Country Planning has recommended the enactment as early as possible of town and country planning legislation in Northern Rhodesia.

A new Town and Country Planning Bill has been prepared in Palestine and has already been published. It is now likely that this legislation will not come to fruition under the British administration.

The legislation in Malta has been amended by two new Ordinances, which were passed in 1945 and 1946 respectively, to facilitate the acquisition of land for reconstruction work by the Civil Government. A town planning ordinance for Gibraltar is in preparation. Sir Patrick Abercrombie has visited Cyprus and reported on the overall town and area planning requirements of the island and has recently visited Hong-Kong to advise on planned development in that Colony. If the recommendations made in these reports are adopted it is to be expected that new legislation will be required.

I will now turn from legislation to actual developments that are in hand or have been planned. This can be little more than a brief catalogue, as I have not the time to do more than give the sketchiest of outlines.

**East Africa.** A Town Planning Adviser was appointed to the Development and

Reconstruction authority in Kenya in 1945, and the necessary staff has been built up since then. Details of some of the Kenya housing schemes for Africans in Nairobi and Mombasa have been published in an illustrated brochure by the Kenya Information Office. One of the Nairobi schemes will cost up to £250,000, but the others are more modest in character. Experiments with various types of house are being made, as well as experiments with varying types of construction. Building costs in Kenya today are, as elsewhere, high, and every endeavour is being made to find a way to reduce these costs. A housing fund of £600,000 is being created—half from Colonial Development and Welfare moneys and the other half from the railway as a loan.

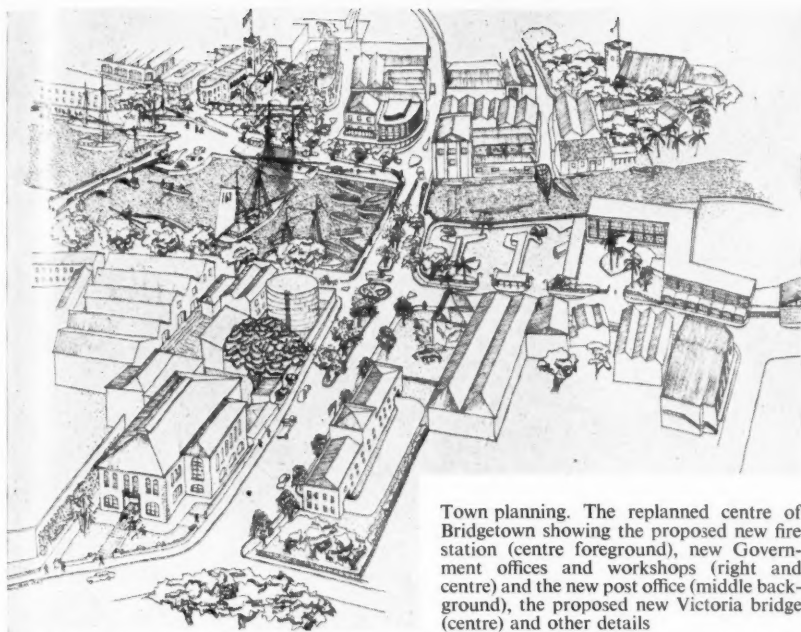
In Uganda a sum of £1,500,000 has been set aside for African housing during the next ten years, but no schemes have yet been settled. An African housing scheme for Kampala is at present under consideration, and discussions are taking place as to the types of house which should be adopted and as to costs. In Uganda building costs at the present time are high, and new types of constructions are being considered.

In Tanganyika experimental work is already in hand. Some economical housing has been carried out in Dar-es-Salaam and in certain country districts.

Slum clearance and rehousing is taking place in Zanzibar, and up to 150 reception houses have been completed and 50 sites for private building, in accordance with approved designs, have been surveyed. In the slum reconstruction schemes 117 houses have been demolished; and 34 new houses have been constructed.

As far as *Central Africa* is concerned, reference must be made to the work which has begun in Northern Rhodesia. £1,000,000 has been included in the development plan of that territory for African housing. Two hundred houses of an experimental character will be completed in 1947, and tenders have been called for the construction of a further 6,500, of which 4,000 will be temporary. The Northern Rhodesia officials concerned with housing have already visited Southern Rhodesia and South Africa in order to obtain information likely to be useful in connection with their work.

**West Africa.** Mr. Maxwell Fry has already given an account to the Architectural Association of some of the work in hand in West Africa, and members of the Institute have no doubt read the report of his address and have seen his recently issued brochure on Village Planning in the



Town planning. The replanned centre of Bridgetown showing the proposed new fire station (centre foreground), new Government offices and workshops (right and centre) and the new post office (middle background), the proposed new Victoria bridge (centre) and other details

Tropics. In Nigeria, the outstanding scheme which is being carried out is that in Lagos, which it is estimated may cost up to £5,000,000. In the Gold Coast work on several housing estates at Cape Coast, Takoradi, Accra and Kumasi has already begun and considerable progress has been made. These housing estates will provide housing for the lower income groups, with or without subsidy. In addition to Government-sponsored work in the Gold Coast, industrial and mining interests in both Nigeria and the Gold Coast have also given considerable attention to housing in recent years. In Sierra Leone, slum clearance has been started as well as town planning for Freetown and Bo, and also for Bathurst in the Gambia. An Architectural Institute for West Africa is projected. This will be sited at the Gold Coast University College. The establishment of a Building Research Institute in Nigeria is at present under consideration, following on a visit from representatives of the Building Research Institute of the Department of Scientific and Industrial Research in this country.

*Far East.* In Malaya, British North Borneo, Sarawak and Brunei reconstruction consequent upon war damage is being undertaken, and further town planning and housing is under consideration. I have already referred to the visit of Sir Patrick Abercrombie to Hong-Kong.

*Fiji and West Pacific.* In the Western Pacific reconstruction due to war damage has had to receive first consideration. The capital of the Solomons is to be built on a new site at Honiara. In Fiji, some town planning is being carried out, and the Colony's development plan contains a considerable number of works projects.

*Mauritius, Seychelles and St. Helena.* Professor Thornton White of Cape Town has already visited Mauritius, and his pre-

liminary survey has been published. A planning scheme for the Port Louis division is now in hand and another for the Plaines Whitem division will shortly be started. A special report has been made by Mr. Aldred on estate housing, and funds will be loaned to the estates for the work of reconstructing the housing for their labourers. Considerable damage was caused to estate housing by the cyclones, and the whole scheme will cost over £1,000,000.

In the Seychelles small improvement schemes are being undertaken in Victoria, the capital. A small housing scheme has also been started in St. Helena. Three types of house are being built both in Jamestown and in the country districts.

*Mediterranean.* For Gibraltar, a plan has been produced by Mr. Holliday in collaboration with the military authorities, and a considerable housing programme has started. Permanent and temporary houses, as well as flats, have been built, and it is estimated that the full scheme will cost a total of £2,000,000.

In Malta the position at the moment is rather confused. The plan for 'Valetta and the Three Cities,' by Messrs. Harrison and Hubbard, has already been published. The local Maltese authorities have, however, not fully accepted the plan and are giving it further consideration, but several blocks of flats have been erected by Government in the urban area to the East of the Grand Harbour, where war damage was most severe.

In Cyprus financial assistance has been given to municipalities to promote housing schemes in the towns for various classes of employees, and as I said before Sir Patrick Abercrombie has visited Cyprus to report on the overall planning requirements.

*West Indies.* I do not propose tonight, in this brief review, to deal with the

position in this region. It will be dealt with, as soon as I conclude, by Mr. Gardner-Medwin and Mr. de Syllas. All I need say here is that the improvement of housing and of town planning is an urgent requirement throughout the whole region. Small beginnings of slum clearance and rehousing have been made in most of the Colonies, but much still requires to be done. There has been progress in Trinidad and Jamaica, but elsewhere progress has been very slow, largely because building costs are at present very high and supplies of building materials are difficult to procure. Plans are, however, well advanced.

**Mr. R. Gardner-Medwin [4]:** It is reassuring to be talking about our work in the West Indies with Sir Frank Stockdale at my side. Sir Frank was Comptroller for Development and Welfare during the first of our three years of Colonial service, and headed our team of technical advisers—or 'experts' as we were sometimes mischievously called. He will therefore be able to answer all the questions which I cannot properly answer about developments in West Indian history, economics, labour organization, social welfare, forestry, and agriculture. It was as an agriculturalist that Sir Frank first made his name in the Colonial Service, so that on this subject he is particularly competent to speak. He will no doubt tell you that in the West Indies a well-devised agricultural policy is the root of all development and welfare.

From what Sir Frank has said you will have learned that architects, and even planners, have now penetrated to the uttermost parts of the Commonwealth. When our small band of five\* arrived in Barbados in 1944 we were almost an unknown species. Those of us who masqueraded as planners were at first regarded with suspicion, even by some Colonial servants; but when it was found that we were quite ordinary, we began to get a good measure of support from West Indians and from imported officials, though there was always the familiar struggle against prejudice and vested interests which we have learned to defy in this country.

One thing that made our task encouraging was the stimulating companionship of 'the circus', as our Development and Welfare organization was called. We were, I think, a remarkably single-minded body—perhaps because we were all unpopular in the same quarters for the same reasons. Development and Welfare is unusually free from the more obvious faults of bureaucracy; it is a fine blend of efficiency and initiative. Its main disadvantage is that it is only advisory, not executive. It has the makings of a central planning organization and yet it is not authorized to plan—except by separate consultation with the ten isolated Governments of the

\* R. Gardner-Medwin, B.Arch., A.M.T.P.I. [4], Town Planning Adviser to the Comptroller. Leslie G. Creed, A.M.T.P.I. [4], Deputy Architect and Planning Officer. Mrs. Joan Burnett, A.A.Dipl. (Hons.) [4], Building Research Officer. S. M. de Syllas [4], Assistant Architect. J. G. Cullen [4], Assistant Architect. The West Indian staff were: P. Phillips, C. McCowan, Miss E. Sealey and C. Barrow.

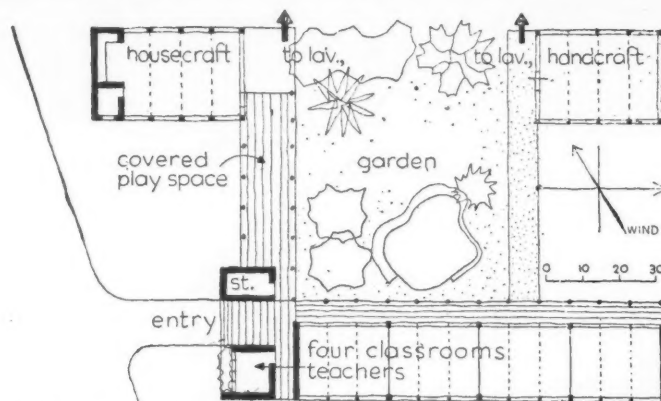
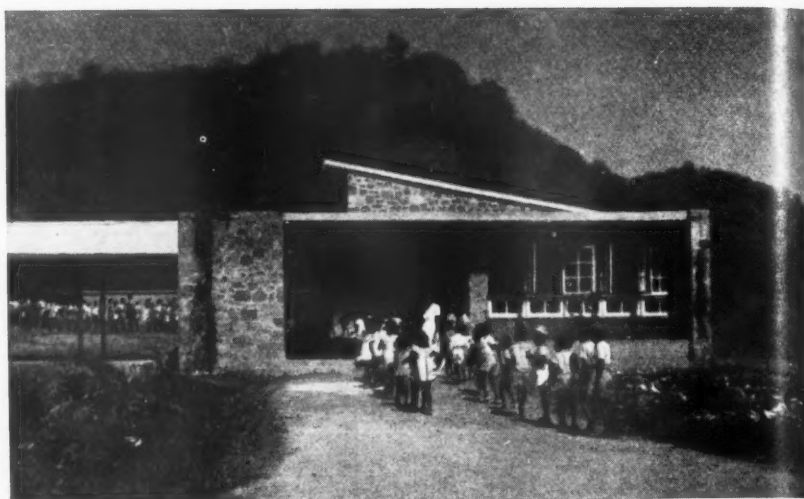


Colonies and island groups. Professor Simey\* (who used to be my colleague as social welfare adviser) has rightly pointed out that the responsibility for producing a general plan for the social, political and economic development of the West Indies must be based on a single agency of government, and that, for lack of such an agency, overall planning has so far gone by default. I mention this because most of us here know very well that it is not possible to produce town and regional plans of real practical value without a firm foundation of economic and social planning. This is now well recognized over here, and it applies equally in the West Indies. The scene is different, but the action is the same.

Two important events last year should help to make possible a central planning agency, linking together regional development plans for each colony. The first event was the Jamaica Conference on West Indian federation; the second was the Secretary of State's announcement of the Overseas Resources Fund, the details of which are now being debated in Parliament. Once federation of the West Indies is achieved an executive planning authority can be established, representative of the several Governments; and if this materialises, the Colonial Office need no longer suffer an embarrassing reluctance—to quote the words of a previous Secretary of State—to impose on the Colonies a new heaven prefabricated in Whitehall.

The new Overseas Resources Fund for economic development should help to translate many paper projects into action, and some positive regional planning should then be possible. The original Development and Welfare funds available to us were barely enough to allow for preventive town planning control, and occasionally for the launching of small pilot schemes of slum clearance in each town. Regional planning was never really feasible because no funds were available for any big, long-term developments. The new funds, I understand, are to be made available for the encouragement of development projects which promise to increase a colony's wealth. This should mean that a greater part of the original Development and Welfare fund will become available for immediate social needs and for non-revenue-producing developments like housing and water supply, while the new Overseas Fund will be used, I hope, for such things as land reclamation, afforestation and industrial development.

I will return later to the financial difficulties which affected our housing policy and building operations, but first I must try to give you some idea of the geographical background of our work. My subject is planning and housing, so that I must not dwell too long on the fascinating contrasts in geology and the social customs encountered in the West Indies. I have no need to disillusion you about the lure of the tropical islands, the balminess of the cli-



English Harbour elementary school in Antigua. The plan (from the ARCHITECTS' JOURNAL) is of the accommodation for seniors. Construction is rubble masonry, timber beams and asbestos cement sheet roofing

mate, the luxuriance of the vegetation, the brilliant greens and blues of the sea, the honest-to-goodness flight of flying fish—they do fly!—the excellence of the cricket, and the robust quality of the rum.

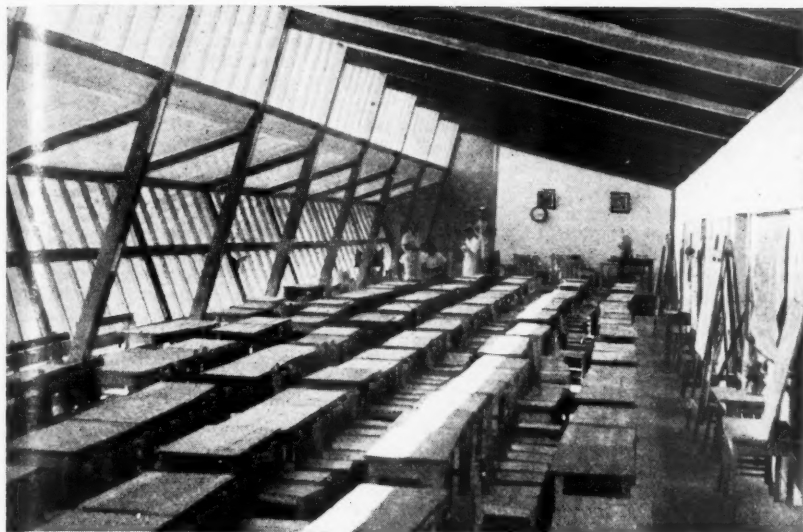
If you want to get a vivid impression of the contrast of bewildering beauty and distressing poverty, I would prescribe the following course of treatment. First read James Pope Hennessy's *West Indian Summer*, an alluring backdrop to the West Indian scene, embellished with romantic historical prints; and then plunge into the Report of the Royal Commission of 1939, whose sordid findings gave birth to the Colonial Development and Welfare Act of 1940. This report gives an excellent account of the economic and social history, and of present living conditions. Those of you who are more deeply interested in racial origins and social organization should read Professor Simey's *Welfare and Planning in the West Indies*; and if you want a full-blooded account of the days of slavery in Jamaica, and of the more disastrous days which followed the emancipation, you should read a chapter or two of *Jamaica, the Blessed*

*Isle*, by Lord Olivier—one of the most progressive, popular and unpopular Governors of that Colony. The long memory of the slave days is something which must be constantly in the newcomer's mind if he is to circumvent the dangerous cross-currents of colour prejudice, still running strong in Barbados, but fortunately beginning to slacken in Jamaica and in some of the smaller islands.

Now for a short account of living conditions in the West Indies. Most of the population is rural, living in fishing villages or in settlements on sugar, banana and coconut plantations, or on isolated holdings. The ordinary peasant's 'house' is usually no more than a flimsily constructed single compartment, sometimes partitioned by rough screens lined with newspapers, and perhaps with a lean-to addition for cooking in the traditional charcoal pot. The construction varies from colony to colony. The poorest habitations in almost every colony are of wattle-and-daub, with a rammed earth floor and a roof of palm thatch or the untidy sugar cane 'trash'. There is a superior form of wattle-and-

\* *Welfare and Planning in the West Indies*, by Professor T. S. Simey, Oxford. The Clarendon Press. 1946.





Questelles School, St. Vincent, has overhanging shades to exclude direct sunshine during school hours. The walls are rubble masonry, and the framing of greenheart

daub, called *tapia*, which the East Indian communities in Trinidad contrive to make very neat and habitable. The Jamaicans have a much more permanent traditional form of construction known as Spanish walling; a rough-hewn or round-pole timber framework packed with boulders and clay or earth with hydraulic properties, which can be rendered and lime-washed. The only hope of housing improvement in most of the rural areas is by encouraging the better types of native construction which give good rain and sun protection, but which too often are being forsaken for huts of imported pine and corrugated iron. These, however, rusted and termite-ridden, are unfortunately regarded as superior.

Our building research officer, Joan Burnett, made a special study of West Indian craft building, and started a number of building experiments and tests of local materials, including the less familiar home-grown timbers, and clays which might be suitable for village tile-making.

In Jamaica, after the hurricane of 1944, collaboration between the Colony's welfare organization and housing department resulted in a most successful co-operative housing venture, in which Government supplied the materials and 'Pioneer Clubs' built houses for themselves. Such schemes of self-help, linked with Government supply of standard workshop-made units—windows and other building components—are now at the experimental stage in other islands. Gordon Cullen's skilful pen was valuable in preparing a simple stage-by-stage building primer for self-help building enterprises of this kind. There is great hope of reduced costs through research into local materials combined with simple methods of workshop production.

Drift from country to town is as much of a problem in the West Indies as it is in this country. The rural problem in many of the islands is strangely akin to that of the

Highlands and Islands of Scotland. There is the same need for conservation and intensified communications and water supplies; for electric power to supply farms and run rural industries; for a co-ordinated agricultural and industrial policy to improve the general economy and provide a better balance of employment; and for improved educational, social and marketing facilities. There is, in fact, the same need for regional planning. For both the West Indies and the Highlands there is much to be learned from the Tennessee Valley Authority, where social and economic planning have gone hand in hand and have had remarkable results in an area equally poverty-stricken, and with resources equally capable of development.

In the West Indies, too, there is the same difficulty as in the Highlands over getting to a doctor or getting to school. The isolated mountain schoolhouse, where children of all ages are taught by one schoolmaster, is similar too; except that the Highland one has a dwindling handful of children, while the West Indian one is packed to burst its doors—in spite of the fact that there is generally no compulsory education. For as yet there are not enough schools or teachers to go round. The first new schools and health outposts, which we had to design for strategic gathering points in scattered areas, gave a hint of what was needed on a very much wider scale. But there is enormous scope for research into regional development. The only part of the West Indies where it has been attempted on the full scale is in the American island of Puerto-Rico.

Just to give an example of this, I think that British Honduras, on the mainland of Central America, is one Colony where a regional plan of development could be made to work wonders. The Colony is about the size of Wales, low-lying and swamp-bound in its coastal regions, but

with a great forest hinterland of mahogany, good building pine and many rare and beautiful secondary hardwoods, as they are called. I was asked to prepare a development plan for the capital seaport town of Belize—a town which really has no business to exist, for it is on reclaimed land surrounded by swamp and liable to hurricanes, and, in the event of a hurricane, to submergence by a tidal wave.

The last hurricane and tidal wave, in 1931, drowned one-twentieth of the population, yet the town has increased from 17,000 to 22,000 since that date: a combination of natural increase and rural drift. The natural increase is  $1\frac{1}{2}$  per cent to 2 per cent per annum, which means that, over most of the West Indies, the population threatens to double itself in 40 years or so. Obviously the growth of the town should be checked, and this can only be done by planned regional development, which mainly depends on a plan for forestry and agriculture. The only full-scale agro-forestry plan so far produced estimated an expenditure of £10,000,000 over ten years for reforestation, including the construction of roads, village settlements, services and labour costs. Alas, the total amount available for development from Development and Welfare funds over the next ten years is not much over £500,000—for all purposes, including roads, housing, education, forestry, agriculture, health and welfare services, and water-supply. This half million would scarcely cover minimum housing and water-supply requirements for the town of Belize alone. Belize has no water supply (here, as in most of British Guiana, water is collected from roofs in wood vats), and, of course, no water-borne sanitation. The sluggish drainage canals are virtually open sewers.

You can see why I am against encouraging the growth of Belize, and why I look hopefully to the new Overseas Resources Fund to make a regional plan possible. This would lead to gradual dispersal from Belize and the development of a new flourishing capital in the centre of the growing Colony on a hill-country site with a setting grand enough for a United Nations headquarters. There are even greater opportunities for development in the vast hinterland of British Guiana.

Fortunately, no other West Indian town is quite so badly off as Belize. In fact, most of them are beautifully situated, sometimes in land-locked harbours, surrounded by splendid mountains. All of them are capable of developing into fine towns, if elementary town planning principles are imaginatively applied.

Leslie Creed, my Deputy Architect and Planning Officer, worked with me on surveys and development plans for all the main seaport towns. There is nothing much different about planning a West Indian town except that in the bad housing areas you can almost move away the condemned houses on wheel-barrrows. West Indians are quite accustomed to moving their wooden 'chattel' houses overnight from one site to

another. Our difficulty was in the foundation work of planning: getting planning and housing legislation drafted and approved; carrying out surveys with untrained staffs, and setting up planning committees of people who did not know what it was all about but who fortunately were more willing to learn than some committees one comes across in this country. We were at pains to get the plan understood, amended or approved by the committee at every stage, so that at the end it was genuinely their baby. Once they have faith that you are not merely performing an official duty but associating yourself wholeheartedly with their needs, West Indians are the most ardent disciples of new ideas.

The towns for which we had to prepare plans are very different in character. The most distinguished is Georgetown (population 60,000) in British Guiana, originally laid out by the Dutch, and very finely too. By force of habit they chose a site below sea-level, and laid it out on a varying grid pattern, spaciouly conceived, with tree-lined drainage and irrigation canals. Most of these canals are now converted into fine boulevards, 150 to 300 ft. wide. Lining some of them are very fine white-painted timber houses, raised on stilts to catch the breeze and to discourage the mosquitoes, and also—this was the original purpose—to avoid the possibility of flooding. Yet this spacious town—laid out on a canal-gridded plain of cane and rice fields, reaching to infinity—has the worst record of congested slums. Some of these are in courts hidden behind the grand houses—closely packed 'barrack ranges' (long sheds housing several families separated by flimsy partitions), and rickety wooden tenements, some of them three and four storeys high. Over the whole of the working-class quarters surveyed it was calculated, on the most modest reckoning, that 85 per cent of the present dwellings ought to be replaced by new ones (including some single rooms in hostels) in order to cure congestion, overcrowding and structural decay.

Bridgetown, Barbados (population about 80,000), is a complete contrast with Georgetown: a shapeless seaport town, with the picturesque Georgian buildings and jostling activity of a Rowlandson street scene; and, of course, the wonderful picturesque harbour of schooners. Leo de Syllas, who worked on our team and later became the first Barbados Government architect and developed the first Bridgetown plan with me, will tell you about some of the peculiar housing and building problems of his island.

Port-of-Spain, Trinidad—a rather mean, congested city except for its fine savannah and American-style suburbs—has expanded from about 70,000 in 1931 to nearly 93,000 in 1946, and this has caused some serious overcrowding. Port-of-Spain was the only West Indian town with planning and housing legislation and a Planning and Housing Commission. The planning part of this has been dormant, but the Commission has carried out some very good

housing schemes just outside the city. We came into the picture only in one of the slum clearance schemes—Trinidad is better off, and can look after itself—working with the Commission in producing designs for blocks of flats. They were the first flats to be staggered to the breeze and to have laundries on the roof and refuse chutes.

Kingston, Jamaica, was so big (202,000) that all we could do was help with legislation, encourage the Housing Department, which was doing some excellent work with a quite inadequate staff, and press for the appointment of a well-qualified planning officer and an architect for housing work. David Spreull, late of my Scottish Department, has been planning officer in Jamaica for a year and has just taken to himself an architect. In a recent letter to me he reports that an exhibition of the first outline plan for Kingston is to be opened by Mr. Bustamente this month.

Before showing you illustrations of housing conditions and new buildings I ought to give you some quick arithmetic on housing survey results, housing standards, and building costs. Those of you who are interested in the detail of this should read the 1945-46 report by Sir John MacPherson.\* It has a fairly full account of progress in our three years, and a very interesting introduction which links up our work with the related work of the advisers in engineering, health, education, welfare and other fields.

Our housing surveys were analysed on four counts: density; overcrowding; structural condition; and sanitation. As a rule, areas with more than 32 single-family houses to the acre (net) were condemned on density, and on this count alone every town we examined had to have considerable expansion areas planned for it. Densities of 50 to 60 houses to the acre were not uncommon. The overcrowding borderline was 40 sq. ft. per person (excluding infants). On this meagre reckoning the percentage of overcrowded dwellings ranged from 20 per cent in Bridgetown to 35 per cent in St. Johns, Antigua, and 20 sq. ft. per person was not uncommon.

Structural decay is largely caused by termite infestation. Most of the timber used for housing, unfortunately, is imported pine. It usually costs about 10d. a board foot. Treatment with anti-termite fluid costs barely an extra halfpenny, but hardly anyone bothers to treat it, except for a small proportion of public works departments; so the termites have a fine time, decay is rapid and maintenance high. Estimates of structural unfitness naturally vary with standards of judgement, but we tried to make it as consistent as possible. The picturesque town of Roseau, in Dominica, was reckoned worst, with 54 per cent of its dwellings beyond hope of repair. It is alarming to think what a hurricane would do to some of these towns of rickety dwellings, most of them perched casually on piles of stones; but we often felt that a

hurricane might be the only chance of redevelopment in our time.

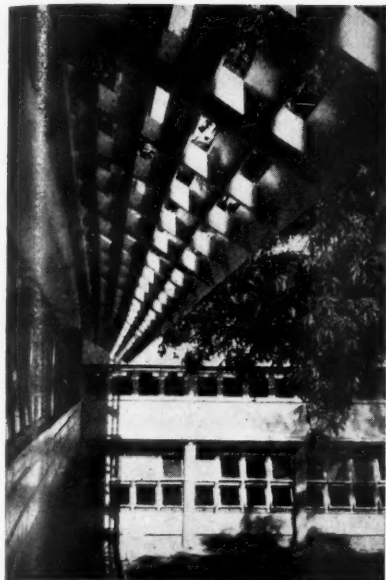
As for sanitation, the normal water supply in the island Colonies is a stand-pipe in the street, shared by a dozen or more families. Only Georgetown (Guiana), St. Georges (Granada) and parts of Kingston (Jamaica) have water-borne sewage disposal. For the rest it is bucket latrines, except for a unique system in Barbados which de Syllas may describe to you. There is little hope of correcting the present situation with the funds available.

When you hear of these conditions and recollect the almost negligible sums available for housing you will appreciate why we have not recommended a sudden change to English standards of accommodation. Some of you may have seen the housing recommendations in the Colonial Office Bulletin, published two years ago, called *Housing in West Indies*. The minimum standard to qualify for grant is at least two rooms and at least 48 sq. ft. per person (excluding infants). One can only hope that as economic conditions improve this rudimentary minimum will be raised—just as it has been steadily raised here, where the optimum of 20 years ago has become the minimum of today. There is a temptation to accept a much lower standard of living space in sub-tropical countries. A slight reduction is in fact reasonable, for so much of the West Indian day is spent out-of-doors or on verandahs. There is no doubt that a West Indian family, given the same accommodation, is very much better off than a Glasgow family living in a 19th-century tenement, or a crofter in his but-and-ben, in the cold and gloom of a Scottish winter. But nothing can alter the fact that far greater areas of 'slum' exist in the West Indies than in the British Isles, and that life in them is lived on a pathetically low level, with scarcely any opportunity for wholesome family or community life. There is small hope for education, health and welfare programmes in such surroundings.

Building costs, as usual, are another difficulty. Surprisingly, they are no lower than in England, in spite of much lower labour rates. Experimental houses so far constructed have shown that urban houses with three living rooms and with the most elementary kitchen, shower and water closet, can be built in some Colonies for £250, excluding land and layout costs. In other Colonies the cost is higher. Assuming a total cost of £300 and 50 per cent subsidy, which is the absolute maximum, the weekly rent would be 5s., which only a very small percentage of the population can afford—even if they work a full week, which few of them do.

It was therefore our duty to study ways of reducing building costs. High costs, we found, were due mainly to lack of good organization and supervision; low labour output (partly due to lack of training and absence of elementary machine tools); and uneconomic use of building materials. Our building research programme set out to counteract these deficiencies, and it is now

\*Development and Welfare in the West Indies, 1945-46: Report by Sir John MacPherson, K.C.M.G., C.B.E. (H.M. Stationery Office.)



Bishops High School for girls, Georgetown, is oriented to catch the prevailing easterly breeze. The windows have projecting hardwood shades (brise-soleils) to exclude direct sun

being developed by Wilfred Woodhouse, the new building research officer at the Barbados headquarters.

We soon found that, as architects of a central advisory body, we could not keep any adequate control of our experimental buildings. Consequently, for the second stage of development, which is now being opened up, arrangements were made for architects to be appointed to the separate Governments. Most of them are now at work, carrying on where we left off.

Mr. de Syllas is giving you a more detailed account of our attempt to design houses and other buildings to suit the West Indian climate, and to make the best use of West Indian materials. We were even more restricted on costs than architects in this country, so we had no opportunity to try out any of the more elaborate tropical devices which have enriched the grand new architecture of Brazil.

There should be some exciting opportunities of this kind, however, in the building of the new University of the West Indies, for which I helped to find a site in Jamaica. The site we chose is magnificent: 600 acres of high ground above the city of Kingston with fine prospects of the Liguanea Ridge—the majestic mountain range encircling the plain on which Jamaica's capital is built.

The University promises so much for the West Indies: not only the knowledge of arts and science, but the nurture of independent, constructive thought, to help West Indians from all over the Caribbean to achieve that unity of purpose and political freedom which they seek. How very important, then, is the architectural expression of this university, and what an opportunity to create an architecture bringing into full play the climatic attraction, the luxuriant tropical trees and perpetual flowers, the rich variety of woods (green-heart, purple-heart, mahogany, rose-

wood, mora, lignum-vitæ, and a host of others) which Honduras, Guiana and the islands can supply. Graham Dawbarn has grand opportunities, and I hope that he will not be forced to follow too hard an austerity line. This is a chance in a lifetime for the West Indies, and architecture should rejoice in it.

The architectural workshop for the University, in Jamaica, should prove a valuable training ground for young West Indians who want to become architects, and I hope that some of the few who have completed their training over here or in Canada will have a chance to help with some of the buildings. There will be no architectural course over there for some time, and there are many difficulties in the way of taking the R.I.B.A. external examinations. I hope, therefore, that some promising young draughtsmen will work with the University team and with some of the new Government architects who have followed us, and that they will qualify for scholarships to this country. Then before long there will be enough West Indian architects, and planners too, to make it unnecessary for 'foreigners' like us to go out and grapple with West Indian problems, enjoyable as that task will always be.

**Mr. S. M. de Syllas:** Mr. Gardner-Medwin has explained how the reorganization of Development and Welfare's advisory architectural staff in the Central Organization brought about the appointment of executive planning officers and architects to each of the separate West Indian Governments. I was fortunate in being appointed Architect and Planning Officer to the Government of Barbados, an island with which I was already fairly familiar from my two years of advisory work as a member of Mr. Gardner-Medwin's team. All West Indian Governments maintain a small department for public works. These departments are generally staffed with engineers and technicians, more concerned with civil engineering public works and building

maintenance than with the sort of building programme upon which it was now proposed that we should embark.

In the short time at my disposal it is impossible to do more than mention the many interesting problems which were brought up by the formation of a department solely concerned with planning and building in its more architectural sense. This is not intended to convey that the most detailed collaboration with the Public Works Department was not necessary, and, generally speaking, it was that department which undertook the constructional side of the work prepared by the architect and planning officer. For various reasons this was not practicable in Barbados, at least for the first few years of the programme of work. While I was an officer in that Government it was necessary for my own department to carry out that work in the constructional field, so that we had the added interest of being able to organize our building programme physically as well as on the drawing-board. The duties of the department, as we evolved them, could be divided into three main functions.

The first was to advise on the model legislation which was already prepared in draft form by Mr. Gardner-Medwin, in collaboration with the Government, for the creation of a planning and housing authority, to be administered under the proposed Planning and Housing Act. The whole of our work was centred on the creation of such an authority and the passage into law of such an Act. The authority's main task when it is formed—it still awaits final sanction—will be to carry out long-term development plans based on a master plan, in the first case in the city of Bridgetown, later to be extended to the second town in the island, and further on to a general regional consideration of the island's planning problems. The preparation of the Bridgetown master plan, therefore, constituted a continuous background to the general work of the office for the first two years of the department's life.



The master plan also made it possible to establish a general system of priorities of projects which the office was to undertake in this initial period. It aimed at giving a general answer to all questions concerned with new housing development and slum clearance, so that pilot schemes in this field could be undertaken against the long-term background of housing development for the following ten-year period. It also indicated a road development system from which it was possible to arrive at proposals for new building lines which might affect any of the immediate priority schemes on which it was required to start construction in this initial period; as well as indicating, by means of its zoning recommendations, the areas where sites for such projects should be located. The preparation of the plan followed the system developed in the Development and Welfare office; starting with the preparation of a housing survey of all the slum areas of the city from which a zoning policy for new housing areas, for housing areas to be retained, for commercial areas, industrial areas, existing and proposed new public open spaces, and so on, could be evolved; the siting of schools (both enlargements of existing schools and proposals for new ones) naturally evolved from this work and was guided by detailed proposals prepared by the Department of Education of the Government of Barbados and issued by them in an important report, *A Policy for Education*, which was the bible for the whole of our educational work, and on which the whole future school system of the island will be based.

The other aspects requiring immediate study were directly concerned with building problems, and the first projects which the Department undertook were carried out with a view to studying certain particular aspects of design and construction. It was necessary to study existing building methods in order to arrive at a reasonable balance between the somewhat costly traditional systems in general practice and the design of new methods and techniques, with a view to developing more economic methods; such methods naturally involved the consideration of existing systems of building organization and brought us into sharp opposition with the existing extremely loosely organized system of contracting, in the island. On the other hand, building by direct labour—the solution which we had to adopt in most cases—created problems of supervision, one of the most serious difficulties the architect faces in the West Indies. Finally, we wished to try out the type plans for schools and housing which had been evolved in the Development and Welfare Office during the initial research period of 1944-45.

It would be claiming too much for two years' work to say that all these problems were fully dealt with or answered satisfactorily; that, of course, will take many years; but I believe that we managed to create an organization which will in time adapt and improve existing systems of design, construction and building organization, and which, while fully utilizing the

considerable craft skills of the building industry as it exists, will enormously improve and economize on these systems in the projects it will carry out over the next ten years.

I shall try to point out some of the major conclusions which we arrived at and from which my successor is now carrying out further experiments and starting to grapple with the long-term housing and school programme. In showing some slides, I have taken one liberty in including a building from outside Barbados, because it shows more clearly certain principles which we evolved than do any of the buildings for which I have adequate photographic records in Barbados. The building is a girls' secondary school for 450 pupils—the Bishop's High School, Georgetown, the capital of British Guiana, which I designed while I was a member of Mr. Gardner-Medwin's staff and which was carried out by the Government of British Guiana's Public Works Department, under the direction of their Assistant Architect, Mr. Heard, and supervised by the Deputy Director, Mr. Allen, to whom we must give all credit for the high standard of detailed finish.

The West Indian craftsman is highly skilled in the use of a few simple tools. Outstanding are joiners and carpenters, while masons—excellent within the somewhat restricted field of rubble masonry walling—do not usually meet the more complicated problems of masonry, with the exception, possibly, of Barbadians, whose particular coral stone lends itself to more complex work. They are perhaps technically the most advanced of all craftsmen of these Colonies. Their failing is that since no proper system of training exists, any man may call himself carpenter or mason, and most labourers almost invariably do so. Only experience of a week or two of their work can inform one of their true qualifications. The lack of any form of craft training means that even the most skilled is completely unfamiliar with a drawing in any form, technical or otherwise. While they may prepare the most complicated setting out, frequently with few mistakes, from verbal instructions, the presence of a drawing on the site, from which they are expected to check dimensions, so inhibits them that the architect is almost invariably best advised to keep it in his office and issue his instructions verbally when he visits the work. This is a very serious problem, and one with which it was a primary duty of my department to deal. We did initiate, during the first two-year period, experiments for training our more skilled craftsmen in the reading of drawings, giving them every opportunity to try to familiarize themselves with ordinary technical means of expression.

The problem of supervision is therefore one of the most serious, and until a new profession is created, so far as West Indians are concerned, of building supervisors and clerks of works, the organization of building must depend to far too great an extent on the presence of a qualified archi-

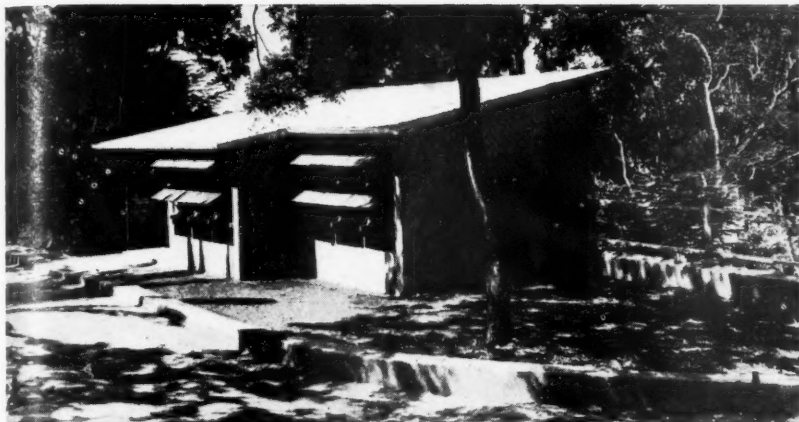
tect on the building site almost every day. This naturally restricts the amount of work that can be undertaken, and one of our most important tasks was to try to train picked men to read drawings and to carry out a modified form of site checking with the usual paper work involved in day sheets, stores issue and accounting, wages and so on. Designs were therefore kept in as simple constructional methods as possible, and even where reinforced concrete was used we made efforts to use weld-mesh rather than separate bars, wherever possible, in order to eliminate faults in reinforcement placing. I should mention that in some islands reinforced concrete is fairly intelligently used, and has been traditionally used for the last 20 to 30 years; unfortunately in Barbados only the simplest lintels have become commonly accepted in general practice, and in this case it was necessary to familiarize labour with a much more complex and extensive use of the material, particularly in the form of slabs.

Designs must satisfy three main requirements. Climate and orientation; ventilation; and structural materials and methods available.

Mr. Gardner-Medwin has already given you an indication of the climatic conditions. There is the almost constant north-easterly trade wind which, during the short, wet season, veers to all directions of the compass and for frequent periods may cease altogether. There are the relatively low maximum temperatures (85 degrees F. being an extreme); the constant sunshine which, while only moderate in intensity, requires screening for the sake of psychological effect at least; and, during the wet season, the short period of incredibly heavy rainfall, often driven almost horizontally by the wind and invariably causing such a fine droplet mist that clouds of spray may drift through a building at every window opening. This is a particularly serious problem, and arises even with a slight wind. These conditions must therefore be dealt with by a system of ventilation which allows continuous movement of air but which also must control too great an intensity of wind which can cause great discomfort, blowing through a building and disturbing every unfixed object within its reach. In addition, where rooms are crowded, as in schools, adequate means of allowing stale air to escape and access for clean air must be provided—to a far higher degree than is necessary in a temperate country. The main way in which we dealt with these problems was to provide extensive window areas, screened from direct sunlight. These must on occasion be closed to exclude drifting spray. It was therefore also necessary to introduce a continuous flow of clean air, whether windows are open or shut, and to allow for stale air to escape at the highest point in the room, by means of natural convection.

The necessity to use the constant breeze as a means of ventilation dictates to some extent the planning form of most buildings. They are almost invariably of a single room width, with or without open access





Experimental standardized terrace house in Barbados of sawn coral block, asbestos-cement roofing and building board lining. The house is planned to allow the breeze to blow through it. Floor area 312 sq. ft. exclusive of kitchen shower extension. Plan from the ARCHITECTS' JOURNAL

has been evolved in British Guiana, where it grows. It is very difficult to get good craftsmen to use it in any of the other areas. It can be used in almost the same way that we would use light steel sections. The main imported wood is pitch pine, which is the only wood at least partially resistant to termite attack, due to its turpentine content. This factor dictates to a large extent the method in which all timber should be used, chiefly in that it should be eliminated wherever possible and, when used, its surface must be exposed to a maximum, so that regular inspection against infestation can be carried out.

Stone is common throughout the West Indies, and is the standard structural walling material; rubble stone in the Leewards and Windwards and Jamaica, and coral stone in Barbados. Coral stone has particular properties, being highly water-absorbent when first quarried, but developing some degree of water-resistance with age. When quarried it is extremely soft and can be cut into slabs with a hand-saw. Great developments are possible by the mechanization of quarrying of this stone, which could revolutionize building economics in Barbados, and possibly in the other islands if economic methods of exporting the stone were introduced. The first experiments of such mechanization are now being tried out in Barbados, where the machinery has recently been imported. Corrugated iron has become the ubiquitous roof of the West Indies and, apart from its high heat absorption, is to be condemned on the grounds of maintenance and cost. Corrugated asbestos, while costly and liable to break in transport, appears to be the ideal solution up to the present. Corrugated aluminium has recently been introduced and, were it not for the high cost factor, might seriously compete with asbestos as an excellent roofing material. The greatest fault of traditional construction

and of average modern construction is the burying of timber in masonry or in the ground or in concrete, so that large areas can be attacked by termites without any sign appearing on the face of the structure. I have mentioned the problem of termite control as being a dictating factor in the structural use of wood. Wherever possible, we have substituted reinforced concrete, at least for floor construction. The planning requirements which I have mentioned naturally evolve a stone-wall system of short cross-walls leaving back and front open for non-structural panels and louvres, to give cross-ventilation, laterally restrained by concrete floor slabs and roof construction. Finally, sheet materials, such as asbestos, impose upon the designer the necessity for the simplest roof shapes and tend to eliminate ridges and valleys wherever possible.

I have referred to the highly absorbent qualities of coral stone. The island is just a solid lump of it. This makes possible an excellent system of sanitation, because the stone is broken up by great crevices underground. The standard system of sanitation, therefore, is to dig a hole until a crevice (called a 'suck') is reached, usually from 15 ft. to 50 ft. deep, into which sewage can be poured without risk of contamination, at least in the lower levels of the island. Apparently, this has always proved satisfactory up to the present.

## DISCUSSION

Sir Thomas Lloyd, K.C.M.G., who proposed a vote of thanks to the authors of the three papers, said: This vote was to have been moved by the Secretary of State for the Colonies, but, unfortunately, as so often happens, the affairs of Palestine intervened at the last moment. He commissioned me when I left the office to convey to you, Mr. President, his very sincere regrets at missing what he knew would be, as it has proved to be, a very stimulating evening.

I have very few qualifications for moving this vote of thanks. I consoled myself at one time with the thought that at least I was a considerable part-author of the Report of the West Indian Royal Commission, but I suffered a setback when Mr. Gardner-Medwin described it as containing 'sordid findings'. Although I have no particular qualifications, I can speak in a personal way about Sir Frank Stockdale in particular. You may not be aware of the fact that this must be nearly his last act as a bureaucrat (if I may call him so) after nearly 40 years of distinguished public service, during which he has the unique record of having visited 34 out of the 35 British Colonies. No one has ever got near that before. He leaves us on Saturday to groom himself to become Vice-Chairman of the Overseas Development Corporation, where he will be able to play fairy godfather to some of the projects of which Mr. Gardner-Medwin has told us. Sir Frank gave us a compact and factual story, against which Mr. Gardner-Medwin was able to show us the brilliance of the West Indies.

corridors, and never in the form of block plans. Where this becomes necessary due to site conditions, a means of introducing air and allowing the escape of air at high level from each room must be evolved. Generally speaking, planning problems, once they have satisfied these conditions, are not different from those of this country. While buildings do not require such a sophisticated approach as those with which we are familiar, due to the open-air life possible in the West Indies, attitudes and habits are totally European and, in my opinion, should be solved on European lines. We perhaps fail to realize that the West Indies, while at different levels of development, are wholly European in outlook, and in that sense they differ very much from other Colonial areas, which have a traditional background, whether of primitive tribal life or of some other type. The Negro and other inhabitants of the West Indies have grown up for many generations wholly within the influence of Europe, and are in every sense Europeans, at very different standards of life.

Finally, structure. Materials dictate the structural solution, since the necessity to exploit indigenous economic materials is paramount. Of the local hardwoods, greenheart is the outstanding one; a timber so dense that it sinks in water and so hard that a specialized tradition of working it

To me this has been a very stimulating evening in every way, because it carried me back to the time of my brief West Indian experience, to which I have already referred. Some four years ago Mr. Gardner-Medwin came to see me, the theory being that I was an expert on the West Indies. He was wondering whether he should go there. After listening to him this evening, I know that I did one good thing; I helped to persuade him to go, and so to carry through the many excellent schemes of which he has told us.

Finally, Mr. de Syllas talked to us about Barbados. Those of us who knew Barbados years ago will be delighted to see the many good things which have been done there during these last few difficult years. I ask you all to join with me, therefore, in thanking the three speakers for a very enjoyable evening.

**Mr. E. Maxwell Fry [F]:** It gives me a great deal of pleasure to second this vote of thanks. I did not realize, at the time when we were working in West Africa, that Mr. Gardner-Medwin and his party were doing similar work on the other side of the world, while Sir Frank Stockdale held the reins in London. When Mr. Gardner-Medwin and I were working so hard we hardly thought that somebody else was doing the same sort of thing. Now that I see what they did, I wonder whether we did as well.

He spoke of the drift from the country to the towns. We felt that so strongly in West Africa, where the population, which is normally regarded as being predominantly agricultural, is nevertheless showing the same tendencies that are to be seen in most of the more highly-developed countries, in the form of a steady movement from the country areas towards the delights and excitements of the town, that, not being able to plan villages—because there are so many thousands of them—we worked—my partner chiefly, and myself secondarily—on a book of village planning, with the idea that it would be sent out into the bush and used by people on the spot. I doubt whether we can ever get very much closer to it than that, because it is one of those problems which have to be dealt with by self-help. It is not possible to help thirteen million people individually to build their own small houses, but in Africa, as in the West Indies, example means a very great deal.

I feel that the West Indies have been extremely lucky in being offered examples such as we have seen this evening on the screen, both architecturally and from the town planning point of view. We have had a very stimulating description of work done by architects at a time when there is not so much work to be done by all of us.

**Sir Patrick Abercrombie [F]:** I should like to ask an unpleasant question. Why is it that the Colonial Office have been so late in getting to work on town planning and housing in this way? Sir Frank Stockdale told us that this work was begun, at any rate in the West Indies, less than ten years

ago. That is more than a quarter of a century after the first Town Planning Act was passed in this country, and it seems to me that we have been rather tardy in getting to work to provide this absolutely essential service in the Colonies.

Perhaps one might quote the shining exception to that, the country which is the most distressed of all at the moment—I hope not due to its planning!—namely Palestine, which initiated planning immediately after the first world war.

It would be interesting to have an answer to that question, because I think that 1938 was rather a late date to start, and some of the places which I have had the pleasure of visiting lamented to me that they had no powers in operation at a very much earlier date than that. We all know that the earlier Acts in this country were not as thorough as the magnificent one with which we have been provided by the present Government, but they have been a great deal of use in this depressed country of ours.

**Sir Frank Stockdale:** Sir Patrick Abercrombie has rightly pointed out what I mentioned in my paper, that the first comprehensive Planning Act was passed in Trinidad in 1939. That followed, as I said, the English Acts of 1932 and 1936. Previous to that, however, in many Colonial territories there were Housing Acts, and housing regulations were embodied in Health Acts. It was only in 1939, however, that the overall, comprehensive nature of planning was first recorded in Colonial legislation.

It is not for me to say why that year was selected, but I think that if you followed what I had to say you will agree that since that date Colonial territories have successfully followed the lead which was then set and have gradually introduced comprehensive legislation. In the West Indies we were faced with the problem of what should be done about the changes which we knew were likely to take place in this country. I discussed in detail with Mr. Gardner-Medwin the question of whether we should try to incorporate in some of the latest Acts what was anticipated would be the action taken in this country. We decided not to do so, and that it was better for experience to be gained in this country in regard to the working of those Acts before we attempted to translate their provisions to Colonial territories. I think that after two or three years' experience in this country we shall have to look at the position again and see how far and in what directions the latest changes in legislation in this country can be translated into Colonial legislation.

**Mr. R. J. Gardner-Medwin:** Sir Thomas Lloyd has referred to his early meeting with me. It is very pleasant to have him with us tonight, because you will have gathered that I thoroughly enjoyed myself in the West Indies, and I felt a keen nostalgia in talking about them to you this evening.

Mr. Maxwell Fry has referred to his own work in Africa. I have talked to him about it, and we have exchanged experiences. The

very great differences between the work in the West Indian islands and the work in Africa are most striking, and we must always remember the importance of not generalizing in trying to solve these problems and not approaching them with preconceived ideas; we must study them regionally, because conditions can be very different, even within the small compass of the West Indies.

**Mr. S. M. de Syllas:** As a final word, let me say something which all of us who have the sort of work which we have been doing at heart ought to keep in mind. Sir Patrick Abercrombie touched on it. It is easy for those of us who have had the honour and pleasure of working in Colonial areas to come back and show pictures of what is undoubtedly a very extensive achievement, but it should be looked at against the background of the far vaster problem which remains. Mr. Gardner-Medwin referred to some of the small houses erected just before the Royal Commission arrived in British Guiana. While our work is not parallel with that, because it is part of a long development which we hope will ultimately change the social conditions of the West Indies, no one should get the impression that a few sunny pictures of a few modern buildings are in any way an answer to the problems. We have all emphasized that these are experiments and indications of the way in which we hope that things will go, and they should be taken as such. It should not be concluded that we have done anything more than make a start.

As the youngest of the speakers, I would point out to those who see difficult times ahead or who wish for a short change of scene, and desire to leave this country, that there is an enormous field for this work. There can be no better post-graduate training than being able to combine great responsibility with terrific opportunities for building and designing under your own steam. I know that some people in England are considering this sort of work. I can assure them that if they are prepared to work hard they will be justified in leaving England, I hope not for good but for a short period, to contribute something to this socially very responsible and necessary task. They will return better architects than when they went out.

**General Meeting Tues. 24 Feb. 6 p.m.** Paper by Mr. M. Hartland Thomas, M.A. [F] Chairman of the Architectural Science Board on *The Influence of Technical Research on Design and Methods of Building*. Synopsis: The distinctive purposes of Art and Science defined; how an understanding of the limitations of each might today herald the advent of a new classic age; the scientific attitude towards architecture and the architectural attitude towards science. These general notions related to current topics including daylighting, colour, proportion, dimensional co-ordination, heat, sound, structure, materials. Architectural science in the search for a new vernacular architecture and in architectural education.



## Architecture of the U.S.S.R.

THE PHOTOGRAPHS ON these pages have been selected to give a general impression of Russian architecture of all periods, types and regions. Practically all of them are from the exhibition of the architecture of the U.S.S.R. which will be open to the public at the R.I.B.A. from 3 to 20 March inclusive. The formal opening by the Soviet Ambassador is on 2 March at 3.30 p.m.

The exhibition has been brought to this country by the Society for Cultural Relations with the U.S.S.R. It is composed entirely of photographs of completed work with the addition of one or two proposed town plans. It has been arranged to show the architecture of the various Soviet Republics and includes a special section dealing with Moscow from the twelfth century until the present day, and many historical monuments and buildings are shown including several photographs of the interior and exterior of the Kremlin. All kinds of buildings are shown including several cathedrals and churches.

In selecting these photographs from a great number supplied by the S.C.R. we have deliberately avoided over-emphasis of any one style, period, region or subject. Nor have we selected those likely to be in accordance with current British ideas. In these pages every effort has been made to achieve objective reporting of Soviet architecture.

Top: sketch for a war memorial by Rudner. Top right: the Tchaikowsky concert hall, Moscow. Middle right: Dynamo underground station, Moscow. Bottom right: Krasnoye Selo near Leningrad by Charles Cameron



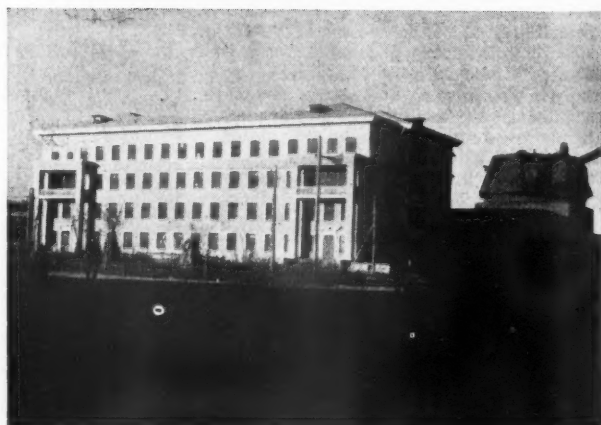
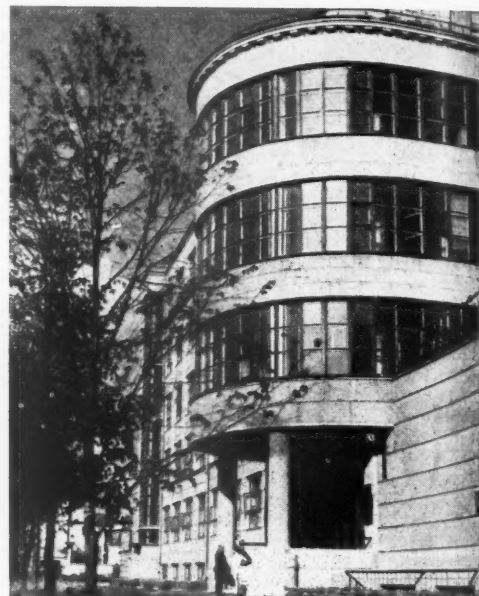




Above: a view in Tbilisi. Right: a recent housing scheme



Above: a village in winter. Right: the Planning Academy, Moscow



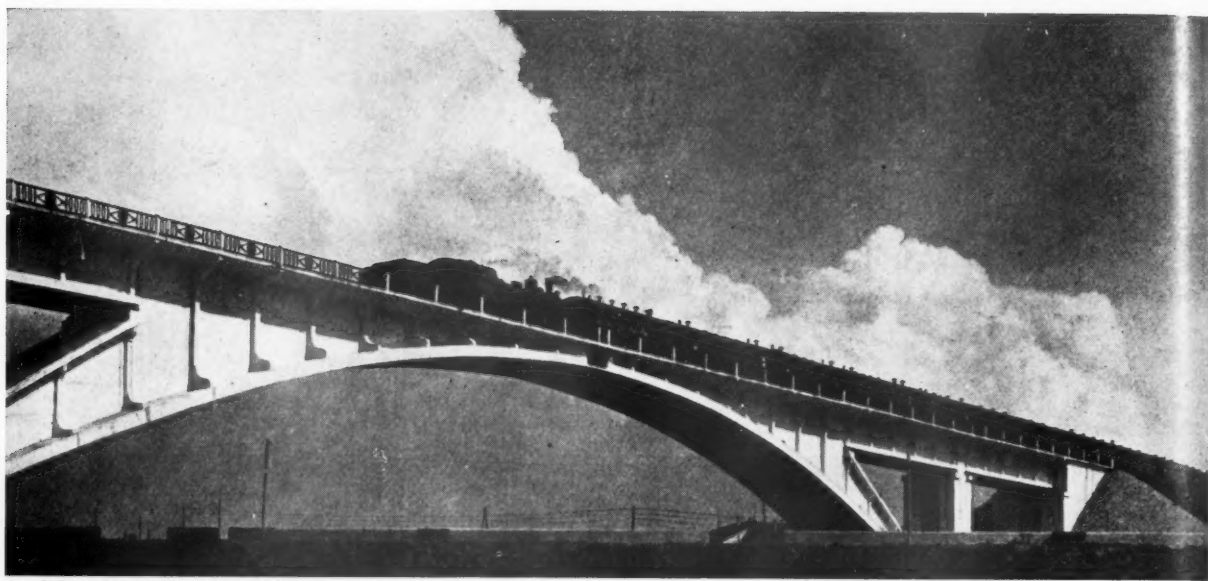
Left: post-war houses in the Stalingrad Tractor Works industrial settlement. Above: a post-war school at Stalingrad



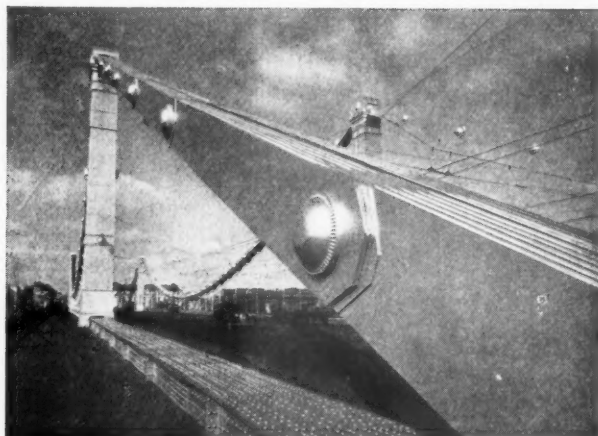


Top: a street in Alma-Ata, the capital of Khazakh S.S.R. Above: the Nizami museum in Baku. Above, right: cathedral of St. Basil, Moscow (1564-8). Below: the Lenin library, Moscow, by Prof. V. A. Shuko. Below right: winter in Moscow

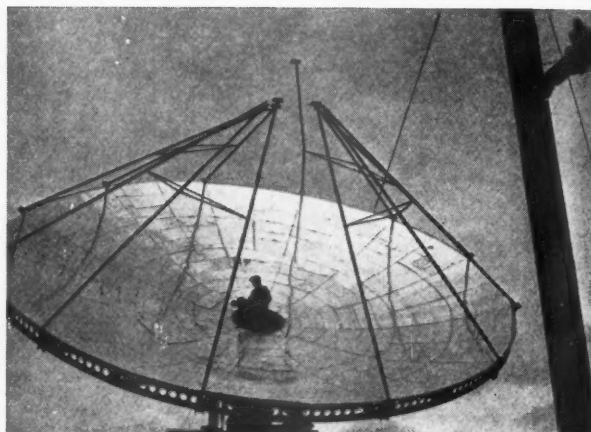




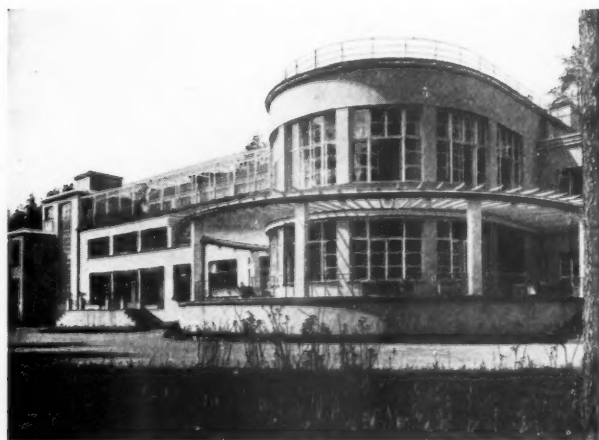
A reinforced concrete railway bridge



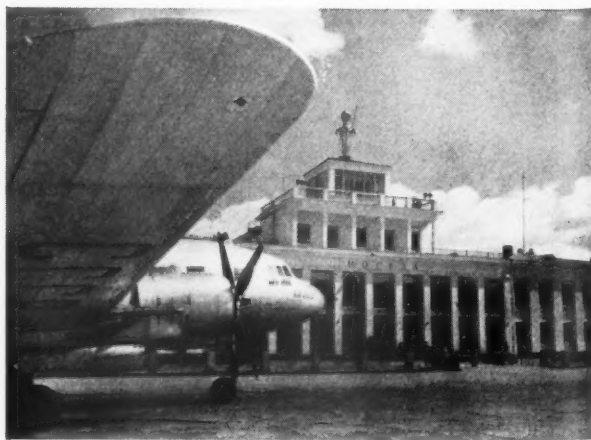
The Krimsky bridge, Moscow



Mounting a helio station at Tashkent (Uzbek S.S.R.)



Sanatorium at Barvikh. Entrance front



Moscow airport terminal building



# R.I.B.A. Prizes and Studentships

## List of Awards for 1948 and Criticism

AT A GENERAL Meeting of the Royal Institute of British Architects held on 13 January the Council's Deed of Award giving the results of the competitions for the Annual Prizes and Studentships awarded by the R.I.B.A. was read, and a criticism of the work submitted was given by Mr. Ralph Tubbs [A]. There were in all 441 competitors. The total value of the Prizes and Scholarships offered by the R.I.B.A. is over £3,000 a year.

The results of the various competitions are as follows:—

**The Tite Prize: A Certificate and £35 for the Study of Italian Architecture.** The subject was 'A Papal Reception Hall'. Awarded to Mr. Peter George Beresford (student), 201 Sarehole Road, Hall Green, Birmingham, 28. (Birmingham School of Architecture.)

Certificates of Honourable Mention were awarded to Mr. Richard De'Ath (student), 48 Dumbreck Road, Glasgow, S.1. (Glasgow School of Architecture) and to Mr. James Daniel Shearer (probationer), Morton Lodge, Dunfermline, Fife. (School of Architecture, Edinburgh College of Art.)

**The Soane Medallion and £120 for Architectural Study Abroad.** The subject was 'An Under-cliff Foreshore and Pavilion'. Awarded to Mr. John Ewing Murray [A], Dalrowan, 35 Castlehill Road, Ayr. (Glasgow School of Architecture.) A Certificate of Honourable Mention was awarded to Mr. William Frederick Mullins (student), 24 Palamos Road, Leyton, London, E.10. (Architectural Association School of Architecture.)

**The Pugin Studentship: A Silver Medal and £100 for the Study of Mediaeval Architecture of Great Britain and Ireland.** Awarded to Mr. Geoffrey Martin Harper (student), Addison House, Wednesbury, Staffs. (Birmingham School of Architecture.)

**The Owen Jones Studentship: A Certificate and £100.** For the improvement and cultivation of knowledge of the successful application of colour as a means of architectural expression. Awarded to Mr. Peter Hatton (student), 62 Dulwich Village, London, S.E.21. (Bartlett School of Architecture, University of London.)

**The Grissell Gold Medal and £35: For the Encouragement of the Study of Construction.** The subject was 'A Covered Swimming Pool in a Seaside Town'. Awarded to Mr. Harry Anthony Wheeler (student), 227 Wilton Street, Glasgow, N.W. (Glasgow School of Architecture.)

**The Andrew N. Prentice Bequest: A Certificate and £150 for the Study of Spanish Architecture.** Awarded to Miss Norah

Rosalie Glover [A], The White Cottage, Bulstrode Way, Gerrards Cross, Bucks. (School of Architecture, The Polytechnic, Regent Street, London.)

**The Banister Fletcher Silver Medal and £26 5s. for the Study of History of Architecture.** The subject was 'The Art of the Baroque'. Awarded to Mr. Peter Silsby (student), 35 The Close, Harpenden, Herts. (Department of Architecture, The Northern Polytechnic, Holloway, London.)

**The Alfred Bosson Research Fellowships and £250 for Post Graduate Research.** Awarded to Mr. Cecil Charles Handisyde, A.A. Diploma [A], 4 Ridgmount Street, London, W.C.1. (Architectural Association, School of Architecture.)

**The Godwin and Wimperis Bursary: A Silver Medal and £250 for the Study of Works of Modern Architecture Abroad.** Awarded to Mr. Hubert Bennett [F], 24 North Grange Road, Headingley, Leeds, 6. (School of Architecture: The University of Manchester.)

**The Henry Saxon Snell Prize and Theakston Bequest: £125.** Offered jointly by the R.I.B.A. and the Architectural Association for the study of the improved design and construction of hospitals, convalescent homes and asylums for the aged and infirm poor. Awarded to Mr. Donald Albert Goldfinch [F], Council House, Congreve Street, Birmingham, 3. (School of Architecture: Royal West of England Academy, Bristol.)

**The Hunt Bursary: £75 for the Encouragement of the Study of Housing and Town Planning.** Awarded to Mr. Reginald Brandrick Turner, Dip.Arch. Dip.T.P. (Mancr.), A.M.T.P.I. [A], 5 Monsall Drive, Macclesfield. (School of Architecture: The University of Manchester.)

**The Athens Bursary: £125 for Study at the British School at Athens.** Awarded to Mr. John Stanley Walkden, M.T.P.I. [F], 58 Oakwood Avenue, Beckenham, Kent. (School of Architecture, The Polytechnic, Regent Street, London.)

**The Henry L. Florence Bursary: A Certificate and £350 for the Study of Greek, Hellenistic and Byzantine Architecture of the Mediterranean Basin.** Awarded to Mr. William Arthur Eden, M.A. (L'pool) [A], Moorholm, Moorside, Neston, Wirral. (Liverpool School of Architecture: University of Liverpool.)

**The Rome Scholarship in Architecture, 1947\*: £250 per annum for two or three years' study and research at the British School at Rome.** Offered by the R.I.B.A.

and awarded by the Faculty of Architecture of the British School at Rome. Awarded to Mr. Richard Fraser [A], 7 Hillview Terrace, Edinburgh, 12. (School of Architecture: Edinburgh College of Art.)

**The R.I.B.A. Silver Medal and £5 in Books for Students of Schools of Architecture Recognized for Exemption from the Final Examination, 1947.** Awarded to Miss Mary Kate Wade Reader (student), 30 Downside Road, Sutton, Surrey. (Architectural Association: School of Architecture.)

**The R.I.B.A. Bronze Medal and £5 in Books for Students of Schools of Architecture Recognized for Exemption from the Intermediate Examination, 1947.** Awarded to Clifford Harry Barnett (student), 323 Kingston Road, Willerby, E. Yorks. (Liverpool School of Architecture: University of Liverpool.)

**The Archibald Dawney Scholarships, 1947: Five Scholarships of the Value of £65 each for the Advanced Study of Construction.** Scholarships awarded to: (1) Gilbert Percival Howes (student), Lynton, 15 Stapleton Road, Headington, Oxford. (School of Architecture, City of Oxford Schools of Technology, Art and Commerce.) (2) Ian Hutton Smith (student), 55 Church Hill Road, Cowley, Oxford. (School of Architecture, City of Oxford Schools of Technology, Art and Commerce.) (3) Donald Punyer Whitehorn (student), 58 Queens Road, Aberdeen. (School of Architecture, Robert Gordon's Technical College, Aberdeen.) (4) Roger Booth (student), 19 Lightridge Road, Fixby, Huddersfield. (Leeds School of Architecture.) (5) George Clayton Smith (student), 18 Walkers Lane, Leeds, 12. (Leeds School of Architecture.)

**The R.I.B.A. Henry Jarvis Studentship at the School of Architecture, the Architectural Association, 1947: £50.** Awarded to Michael George Francis Ventris (student), 47 Highpoint, North Hill, Highgate, N.6.

**The R.I.B.A. Howard Colls Travelling Studentship at the Architectural Association, 1947: £15 15s.** Awarded to Ralph Ewart Wilkinson (probationer), 28 Eaglesfield Road, Shooter's Hill, London, S.E.18.

**The R.I.B.A. Donaldson Medal at the Bartlett School of Architecture, University of London, 1947.** Awarded to Miss Jane Lloyd (student), 9 Clifton Terrace, Brighton, Sussex.

**The R.I.B.A. Prize for Art Schools and Technical Institutions with Facilities for the Instruction of Intending Architects (£5 in Books), 1947.** Awarded to Mr. Ian Donald Elliott (probationer), 56 Albert Road, Ashford, Kent. (School of Architecture,

\* Illustrated in the R.I.B.A. JOURNAL of August 1947.



City of Canterbury College of Art and Crafts.)

**The R.I.B.A. Prizes for Public and Secondary Schools.** These Prizes are of a total value of £10 10s. They are offered for an essay of not more than 1,000 words or for sketches or scale drawings of a building or part of a building. The Prizes are offered for competition between boys and girls in Public and Secondary Schools.

The Prizes were awarded as follows:—

**Essays.**—A Prize of £4 4s. to G. Little, The Grammar School, Batley, for his essay on Riddlesden Hall, and a Prize of £1 1s. to T. W. Whipp, Scarborough High School, for his essay on the Scarborough High School for Boys.

**Sketches.**—A Prize of £2 12s. 6d. to A. J. Walmsley, Northampton Grammar School, for his drawings of Whiston Church, Northants, and a Prize of £2 12s. 6d. to Dennis Wrigley, Manchester Grammar School for

his drawings of Mobberley Parish Church.

The Royal Institute Silver Medal and £50 for an essay was not awarded. The award of the Ashpitel Prize will be announced later.

The Council's Deed of Award read at the Meeting was signed by: Sir Lancelot Keay, President; A. Leonard Roberts, Hon. Secretary; S. W. Milburn and Hubert Worthington, Members of Council; C. D. Spragg, Secretary, R.I.B.A.

## Life-Force in Architecture. By Ralph Tubbs [4]. A Paper incorporating criticism of the designs submitted for the Prizes and Studentships. Read at a General Meeting of the R.I.B.A. on Tuesday 13 January 1948. The President in the Chair

I AM DEPARTING from precedent this evening. I am going to be quite honest with you, the reason for this departure lies in the sterility of so much of the work submitted for the R.I.B.A. Prizes and Studentships both this year and in recent years. The greater part of this work is commonplace or dead. Nor is this only my opinion, one has heard it voiced on all sides for some while. Some unfriendly people have blamed the Royal Institute for the dreariness of the annual exhibition of prize-work. With regard to this, all I can say is that the experience I have had during the past year as critic has shown me quite clearly that the blame does not lie with the Institute. It lies with the competitors and perhaps even more with those who were not competitors but should have been.

I want to speak tonight, therefore, not only to those who went in for the competitions, but to those who did not, and equally to those who might be entering for them next year or the years after.

Now for my departure from precedent. Instead of plunging straight into a detailed criticism of the work submitted, I propose to preface my criticisms by putting before you a theme on the nature of architecture. And for the reasons I have already stated, my theme is 'Life-Force in Architecture.'

I make no apologies for the abstract nature of this thesis, for until we understand what lies behind architecture we will never achieve architecture. For this great art is not just a combination of efficient planning, a beautifully sharpened 2H pencil and a knowledge of construction. For building to become architecture, it must be in accord with this thing, which, for want of a better word, I call the Life-Force. Let me begin by a 'dry-as-dust' definition, and then I will try to blow the dust away. The philosopher Henri Bergson defines 'Life-Force' or 'Élan vital' as 'the source of efficient causation in nature'. But unless we are students of philosophy and are used to this kind of language, that definition does not get us very far. It does, however, suggest the mystical nature of Life-Force. To us who are more used to Shakespeare, it is the 'harmony in immortal souls': to the Hindu, it is the Atman; to Thomas Hardy, it is 'The Voice

of Things': it is the rhythm of the universe. But why try to define what cannot be defined. To one that hears the 'music of the spheres' no definition is necessary, to one that does not, definition will not help him.

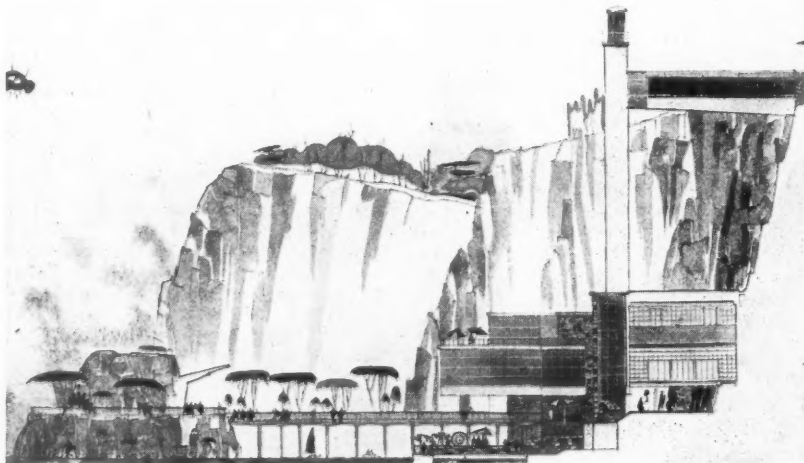
That a building should be in accord with this Life-Force is absolutely essential if it is to be architecture. If it is not, the building is sterile, meaningless, dead—like so much of the prize work upstairs. But let me not be misunderstood. The statement that architecture must be inspired with the vitality of the Life-Force does not imply that all architecture should be vigorous and strident; on the contrary, it is more likely to be calm and subtle. We find the expression of Life-Force as much in a drop of dew as in the lightning, as much in the gentle profile of a balustrade as in the vigorous sweep of the concrete viaduct.

Let no-one be misled into thinking that I am presenting a new concept of architecture, that by introducing Life-Force as the basis of architecture, I am being as bold as Mr. Summerson when he presented the 'aedicule' theory of Gothic. What I am emphasizing is no new theory, I am merely unearthing and presenting in the open the

driving force behind all the fertile architectural movements of our day (and it would be equally true to add of any other great period of architecture).

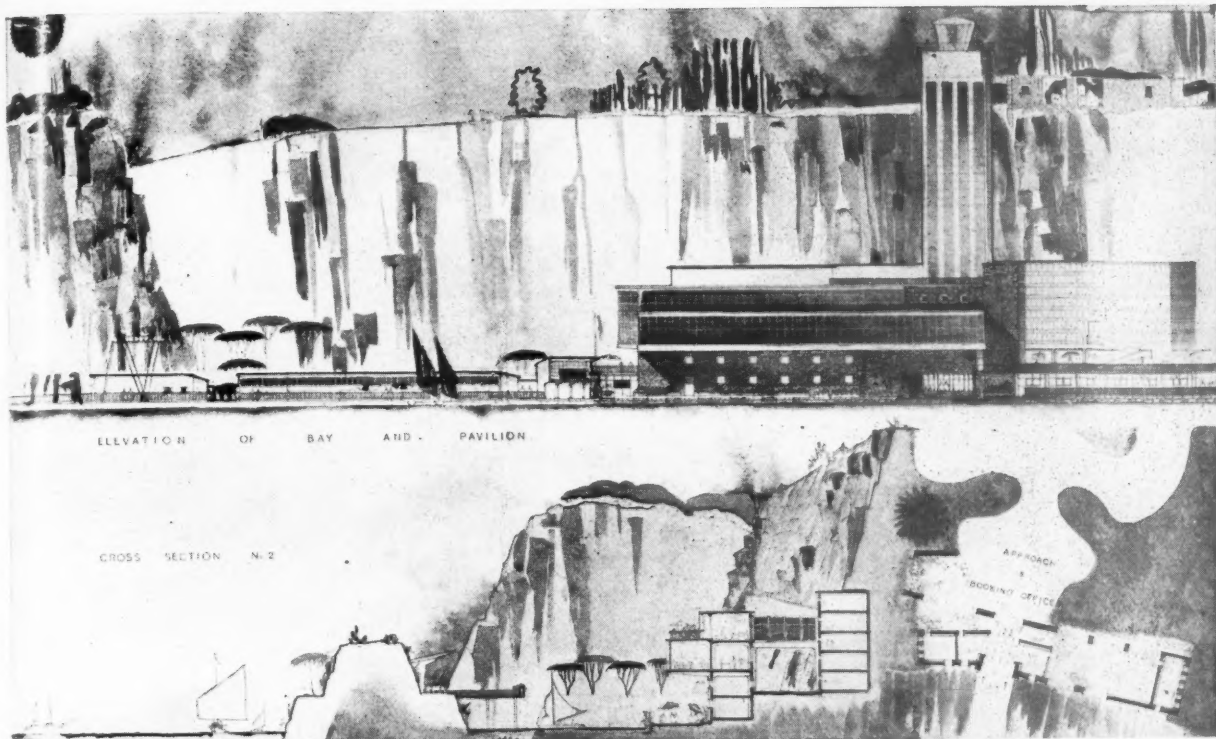
What is Frank Lloyd Wright's theory of Organic Architecture but another way of saying 'architecture in accord with the Life-Force'? Let me quote one or two passages from him: 'The true architecture of democracy will be the externalizing of the inner seeing of the man'—or 'it is only organic architecture, interior philosophy, and a living religion—it is these three alone that can make life again creative'—or 'We who love architecture recognize it as the great sense of structure in whatever is—music, painting, sculpture, or life itself'. I looked up these quotations long after my thesis had matured in my own mind and was almost taken aback to find the very words taken out of my mouth.

Or if we turn to the writings of Le Corbusier, do we not find that the desire to get in accord with the Life-Force, at least in its less mystical form, is the source of his inspiration. It is the force which makes him preface his book *La Ville Radieuse* with a diagram of the solar system and an illustration of leaves bursting from the bud. The Life-Force is compelling him in almost every line of his writing. As we are all familiar with his work, one quotation alone will suffice, and I take it from *Vers une architecture*—'Architectural emotion exists when the work rings within us in tune with the universe'.

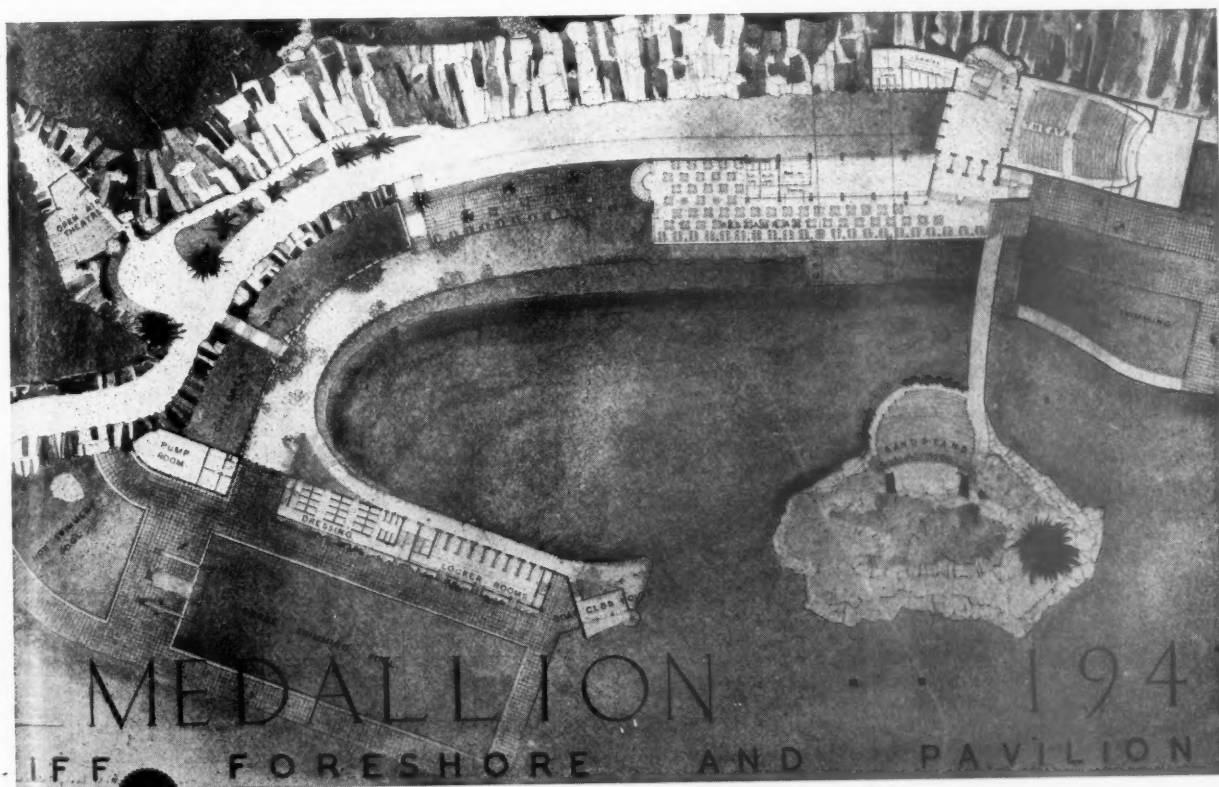


The Soane Medallion winning design. Cross section showing lift and bridge





The Soane Medallion. General plan, elevation and cross section of the winning design by Mr. John Ewing Murray [4] (Glasgow School of Architecture). The subject was an undercliff foreshore and pavilion. The illustrations are from a single large sheet of drawings

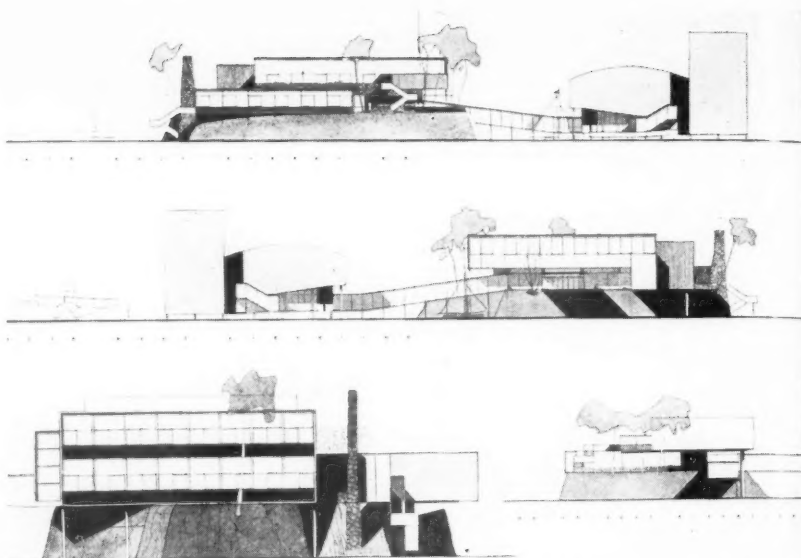


Frank Lloyd Wright and Le Corbusier, although differing widely in their approach to architecture and to life, represent without doubt, even if we prefer only to regard them as figureheads, the two most fertile sources of architectural inspiration in this century. Nevertheless, I should mention in addition to these two doctrines the recent English movement in favour of the Picturesque—a movement to which the ARCHITECTURAL REVIEW has devoted a good deal of attention and which we now refer to familiarly by its Christian name of 'Sharawadgi'. Is not this movement, too, an attempt to win architects from a dull and prosy materialism to a poetic sense of Life-Force? With its roots in the romanticism of such painters as John Piper and Graham Sutherland, is it not trying to bring us in accord with the 'music of the spheres'? Just as John Piper has said that Constable 'made the contrasted sparkle and gloom of nature in the small part of one county stand as a symbol for the sparkle and gloom of the world and of eternity' or that Turner 'could see the universe in a rainstorm', does not the REVIEW ask that we should find a similar expression of Life-Force in architecture?

My thesis tonight that if architecture is to be real it must be in accord with the Life-Force is, therefore, no new theory, no personal hobby-horse, but merely the disclosure of the great theme that underlies all the fertile philosophies of architecture. I do so as a necessary preliminary to explaining the sterility of much of the prize-work upstairs.

But before examining the individual competitor's work in detail, let us consider the qualities which we should expect to find in an architect who creates work in accord with the Life-Force, so that we can later see if the competitors for the R.I.B.A. prizes reveal these qualities. First, I would put awareness, and would emphasize that awareness is a positive quality. Its philosophical definition is 'consciousness considered in its aspect of act'. It is therefore no passive state but implies an active response. It is the heart that 'dances with the daffodils'. In connection with awareness I would once again mention Thomas Hardy, and I feel I have added excuse for doing so in a talk on the R.I.B.A. prize-work, for, as many of you may know, Hardy trained as an architect and even entered for the R.I.B.A. prizes and won the Essay Silver Medal in 1862. Of all men, he was a man of awareness, and I would draw special attention to a poem of his entitled 'Afterwards'. This poem tells us in simple and sublime language how he would like to be remembered after his death. It has the refrain: 'He was a man who used to notice such things'. There it is—awareness is the quality to which he attached the highest importance. As we look at the drawings upstairs, of how many do we want to say of the competitor—'he must be a man who used to notice such things'?

The second quality which is necessary, if an architect's work is to have significance, is a wide experience of life. This follows closely on awareness, for the man who



The Soane Medallion. One of the drawings of the design awarded a Certificate of Honourable Mention by Mr. W. F. Mullins (The Architectural Association School of Architecture)

is aware cannot fail to have wide interests, and if he has wide interests he will soon have wide experience. I realize, of course, that the young competitor for an R.I.B.A. prize cannot have had wide experience, but he can certainly have wide interests, and this will help to bring balance and proportion to all he creates. An architect, therefore, should take every opportunity to enrich his mind, whether this be studying the work of contemporary painters in the art galleries, climbing rocks in the Alps or eating caviar with the general.

The third essential quality I wish to mention is the urge to create, for without this the architect or student is suffering from a temperamental disability. How can a man express the rhythm of the universe unless driven by a passionate desire to do so? This passion must drive him on and on and on.

Let us now turn to those qualities which are in conflict with the Life-Force. I would put architectural bombast first. This may be due to the pompous vacuity of the mind of the designer, to deliberate insincerity or to lack of self-confidence. It is a characteristic of the man who blows up his rubber pig until it is full of nothingness and spittle. Architectural bombast may take the form of unnatural symmetry or axiality, of disregard for the nature and character of the site, of forced scale or of decorative trumpery. Such architecture becomes discordant with 'The Voice of Things'.

Cliché is discordant too, for in cliché there is no life. I should make it quite clear that cliché is not to be confused with style. Cliché refers to a phrase or a motif used without careful thought to its significance. For a Greek to use a Doric column was not cliché, for it was part of his language and in each case he modulated it to become an integral part of his design; for us to use a

reinforced concrete shape and then construct it in steel is cliché.

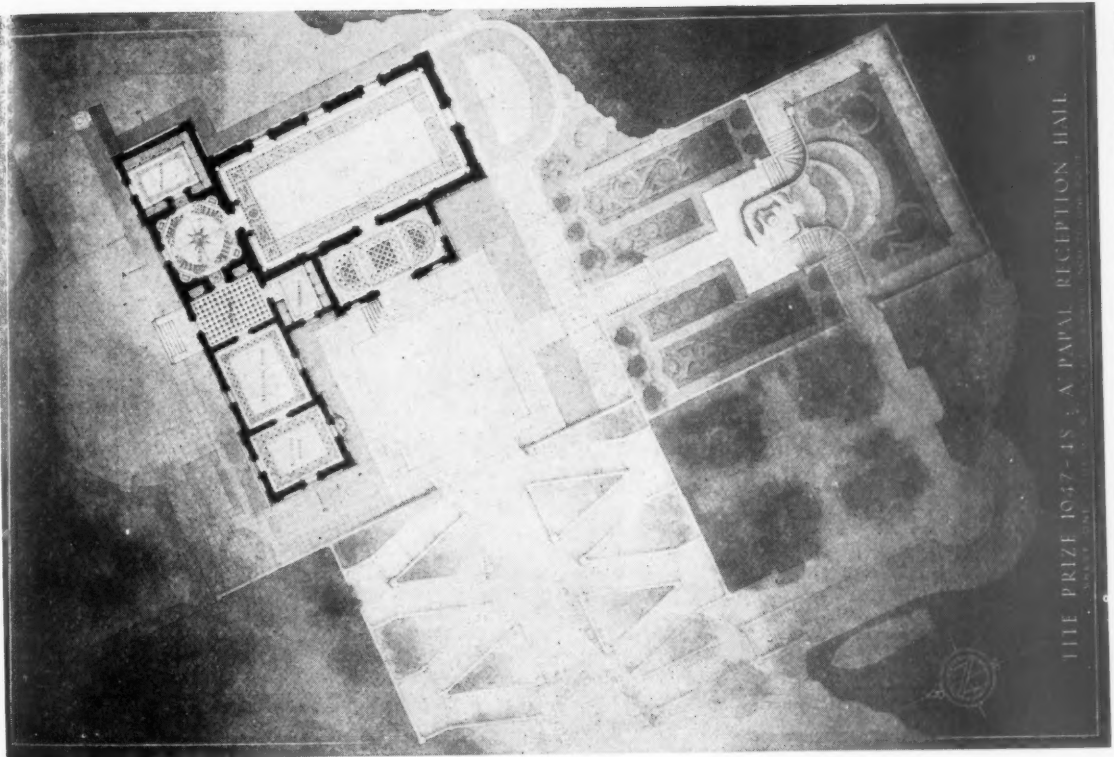
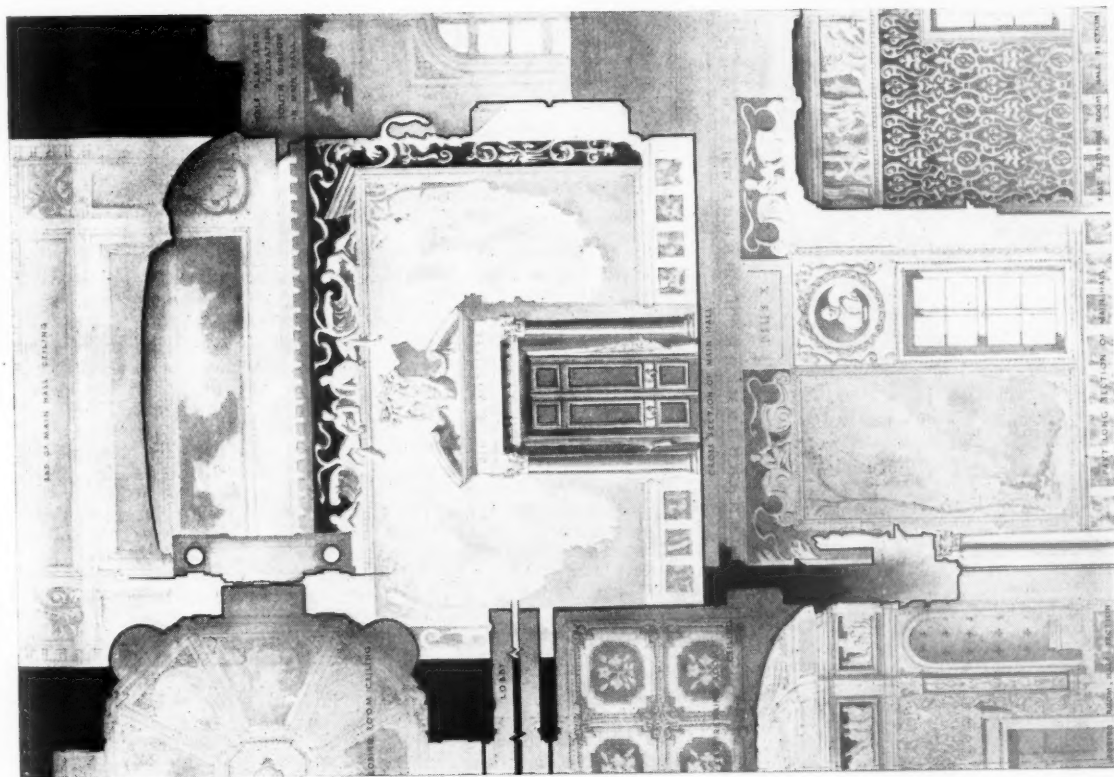
A third enemy of the Life-Force is 'a little learning'. By this I do not imply that it is only high-brows who can create works of vitality, for many a peasant structure is in true harmony with the universe. It is the man who has lost his initial simplicity under a veneer of knowledge and yet has not acquired the second stage of simplicity in wisdom, who creates the worst architectural travesties. He is the man who creates 'modernistic' architecture—buildings with some of the features of today's living architecture but without any of the spirit.

The last quality, contrary to 'The Voice of Things', which I shall mention before coming to the prize-work, is the cowardly urge to want a reason for everything.

'Try, try, and never mind the reason why!' says William Blake: a rash line, perhaps, to quote to architects. But there is far too widespread a notion that architecture is the child of logic and research. Such a child will never laugh nor cry. One of the parents must be poetry. Only then can the architectural child be in accord with the Life-Force.

My departure from precedent has led to a long introduction. I felt it necessary. In the light of the theme I have elaborated I will now consider the prize-work.

I will begin with the design prizes, taking the senior one first—the Soane Medallion. There were 66 entrants in the preliminary competition, and 10 schemes in the final round. Competitors were asked to design a beach resort on an undercliff fore-shore. The scheme was to include an entertainment pavilion with ballroom, restaurant and theatre, a large sea-water swimming pool, children's bathing and paddling pools, a bandstand, a yacht club, and,



THE PRIZE 1947-48: A PAPAL RECEPTION HALL

The Tie Prize: a Certificate and £35 for the study of Italian Architecture. Two of the three drawings submitted by the winner, Mr. Peter George Beresford (Birmingham School of Architecture). The subject was a Papal Reception Hall. The drawings are (left) the sheet of details and (right) the plan

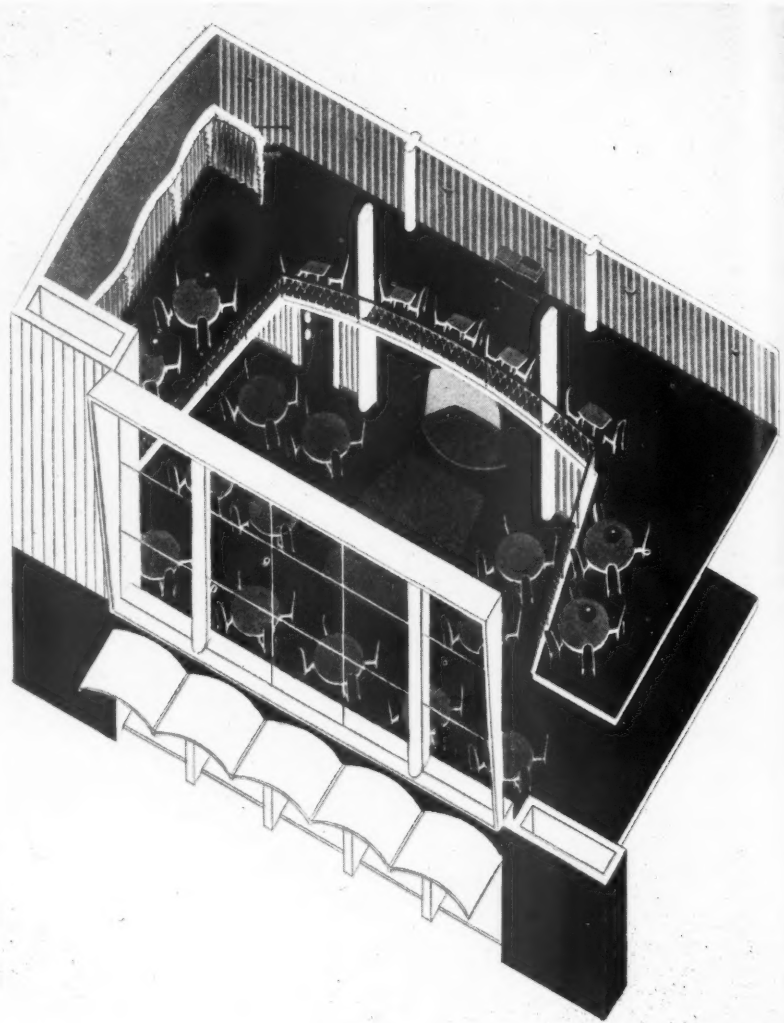


indeed, to provide generally for the pleasures of seaside holiday-makers. It was a glorious site—an intimate and sheltered bay surrounded by richly coloured cliffs. In the bay a great off-shore rock rose 40 ft. out of the sea. To reach the shore it would be necessary to instal lifts or a funicular railway. What a wonderful chance for a poetic creation, for a scheme that danced with the waves, for a building in accord with the Life-Force. The competitor's awareness was put to the test. The vivid contrast of the horizontal plane of the sea and the precipitous cliffs, the eternal solemnity of the rock in the water, the mystery of the chine—did the competitor 'notice such things'? One or two did to some extent, notably Mr. Mullins and the winner Mr. Murray, but on the whole, these things seem to have been passed by.

Viewed as a single conception, it appears to me there were two possible imaginatively creative solutions, bearing in mind that the project occurred where the fluid plane of the sea met the rough and solid vertical plane of the cliffs. One could either associate the buildings psychologically with the massive verticality of the cliffs or let the buildings dance in the sea. Mr. Murray associated his building with the cliffs, Mr. Mullins made his dance in the water, though his dance misses the beat now and again. Personally, I think Mr. Mullins was right. He only just failed to win, but he failed because the jury felt there were some serious planning defects, the worst of which was the very poor access to the theatre. The jury also felt that the scheme had been thought of too much as a set of separate buildings. I am not sure that I agree with this, but Mr. Mullins should have dispelled this possible criticism by having at least one drawing showing the three-dimensional composition as a whole.

With regard to the buildings, this design shows more than the influence of the spirit of Le Corbusier. I notice one motif after another being directly derivative from his designs. For reasons I have stated earlier, this gets perilously near cliché. But on the whole this is a fine design, and I congratulate Mr. Mullins.

His drawings, too, were some of the few that gave me pleasure for he shows sensitivity and awareness. Amongst a great deal of sterility, here was some echo of the Life-Force. But even then, I feel that the awareness is more for the paper design than for the buildings. The designer was aware of the need for lightness and elegance, and has succeeded in bringing these qualities into his drawing, but this is somewhat of a deception as regards parts of his scheme. For example, the clumsy and massive stage tower only has the thinnest wash over it, as if the competitor hoped the jury would not notice it. How tempting it is sometimes to make a design drawing which gives one a thrill to look at but which is really a deception, to let that part of one which is a painter deceive the architect in oneself. No-one feels more keenly than myself that our drawings should satisfy the painter, but the quality of the building must remain the final test.



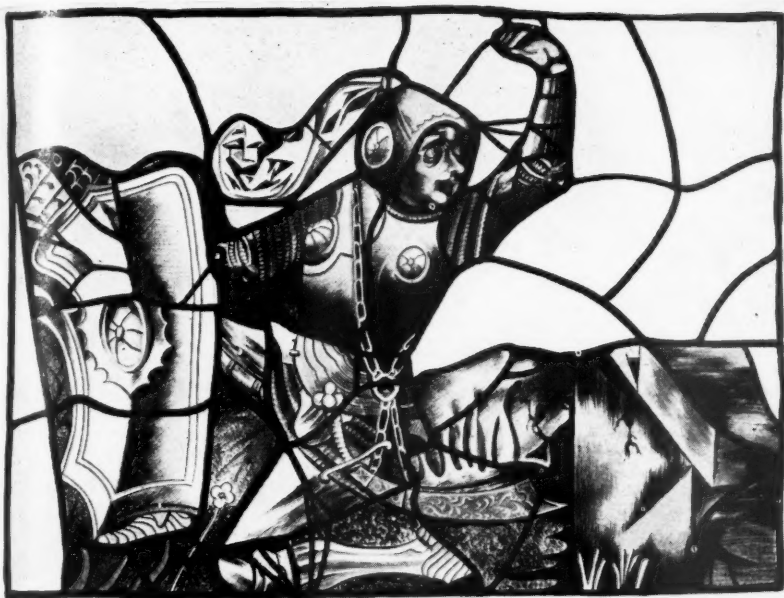
Drawing submitted by Mr. Peter Hatton (Bartlett School of Architecture), awarded the Owen Jones' Studentship

If it were the drawings and not the buildings that were the criterion of an architect's work, the jury would never have awarded the Soane Medallion to Mr. Murray. While congratulating him on his success, I must confess that his presentation is truly painful. It not only shows a very poor sense of colour, but the indications of natural vegetation are crude and unaware. One does not ask for realism, but if one departs from realism, one must infuse the drawing with spirit.

But once one has made the heroic effort to see beyond the drawing to the building itself, one finds a good design and a plan that works well. Mr. Murray has been sympathetic to the natural scenery by avoiding any interruption of the curve of the bay and by retaining some of the rugged qualities of the off-shore rock. He has provided good protection from south-

west gales and made ample provision for children. The natural rocky cliff-face is exposed in the ballroom in the form of a band grotto. I am surprised there are not more attempts at romantic detail in the schemes submitted, for the programme lent itself to a 'sharawadgi' approach. But romanticism must grow from a pure lyrical emotion or it descends into the worst form of banality. The mural of the galleons in the restaurant arouses my deepest suspicions—here (oh, horror!) is the cliché of the parchment paper lampshade.

I have said that an architect must be aware, that especially he must be aware of 'The Voice of Things'. But, while all men should be so aware, it is necessary that an architect should be able to translate what he hears in terms of form and line and the enclosure of space. These form the archi-



Historical colour study by Mr. Peter Hatton, winner of the Owen Jones' Studentship

tect's language as words do the poet's. An architect must feel shapes. To quote again from Le Corbusier: 'By the relationships which he creates, the architect awakes in us profound echoes, he gives us the measure of an order which we feel to be in accord with that of our world'; so the shapes are an echo of 'The Voice of Things', the Life-Force. With that thought in our minds, we should expect some indication of subtleties of proportion.

From the Soane Medallion let us now turn to the Tite Prize. Before considering the individual designs which were required to be in the Italian Renaissance manner, I must say something on this bitterly contested question of designing in a historical style. In this I speak personally as critic, and I told the jury that I intended to do so when the programme was set. I have listened carefully to every argument put forward by those in favour of designing in a historical style, but I remain convincedly against it. No-one appreciates more than I do the value of studying the architecture of the past, of analysing the subtleties of the buildings of different times and places and of making sketches and measured drawings, but this is quite different from attempting to create something in a style which, at the time of its vitality, had its roots in philosophies and conditions entirely differing from our own. It is an unnatural act, a rebellion against the living 'Voice of Things'. I understand that under the bequest, the prize was intended to promote the study of Italian architecture—an excellent intention—but there is no suggestion that competitors must themselves prepare an Italian design. I am very pleased, therefore, to be able to tell you tonight that I have just heard that the Prizes and Studentships Committee have agreed

to recommend to the Tite Prize Jury that in future this prize should be for a design in a contemporary natural way.

This year there were 279 entries for the Preliminary Competition, and 14 schemes in the Final Competition. The subject set was a Papal Reception Hall to be erected on a rocky outcrop beside an Italian lake. The building was to be approached primarily from a road running beside the site, but provision had also to be made for the few who could come by launch across the lake. From the point of view of planning, the main problem consisted in resolving the difficulty of these two approaches.

Let me begin by congratulating the winner, Mr. Beresford. He gets over the problem of the two approaches by bringing visitors from road and lake into a forecourt. His plan is simple and works well, but has one serious aesthetic defect. The elevation to the garden has symmetry imposed upon it, when the masses behind this elevation are entirely asymmetrical. This is contrary to an organic sense of architecture and even the limitation of designing in a style is no excuse for this. Of Mr. Beresford's drawings, the sheet of interior design is the most noteworthy. It shows a rich and fertile imagination, full of the urge to create. But it is very difficult to disentangle this drawing, and juries do not like that. I overheard one member say it reminded him 'of the oriental who inscribed his name and those of all his family on a grain of rice'. But though over complex, this drawing is a fine composition, the disposition of the weights on the page being sensitive. I hope Mr. Beresford will devote this urge to create and this awareness to the expression of the true Life-Force in a contemporary way.

The third of the prizes in which the emphasis is on aesthetics is the Owen Jones' Studentship for the study of colour theory. Candidates are required to submit a portfolio of studies of existing works together with one or more original designs. Mr. Hatton was the only competitor this year and the scholarship has been awarded to him. The jury hopes that Mr. Hatton will concentrate the studies for which he uses the scholarship within a suitably limited field which he can treat thoroughly. In a fascinating notebook, Mr. Hatton has particularly well portrayed the spontaneity in the use of colour of primitive peoples, so one is disappointed to find that his own original work so sadly lacks this quality. He portrays the Life-Force in the primitive, but does not show it in his own work.

The emphasis now moves from the emotional field to the architect's contact with the physical laws of the universe; the next three prizes have special reference to construction. It is only a change of emphasis. Design and construction are not two separate things. It is for this reason that in the award of the Grissell Gold Medal, the jury gave consideration not only to the efficiency of the working drawings but also to the quality of the design. The subject set was a Covered Swimming Pool in a Seaside Town. There were seven entries and some of the drawings were of a very high standard, especially those of Mr. C. L. Bird. But, unfortunately, Mr. Bird's design was altogether too sophisticated for a site on the north Cornish coast, and had tiers of windows, resembling a multi-storied factory, facing the cliff. Mr. Wheeler, however, although not producing such good drawings, made a design which showed a greater awareness for the site, and his construction was economical and clean. To him the Medal was awarded.

It was disappointing that no-one entered for the Arthur Cates Prize. Though normally offered for a study of the application of geometry to vaulting, this year the prize was offered for 'A Study of the Spanning of Space with reference to contemporary methods of Roof Construction'. When we think of the potentialities of this subject, bearing in mind such stimulating developments as shell concrete construction, it is surprising that no-one felt inspired to make a study of this. I remember with what hope the jury laid down the programme, and the absence of competitors for this prize reinforces my earlier statement that the responsibility for the sterility of much of the R.I.B.A. prize-work lies not with the Institute but with those who do not compete for the prizes but should do.

The third prize especially concerned with construction is the Archibald Dawnay Scholarship, which is offered to students in the third year of their course. Concerning this I propose to add little to what I have already said on the inseparability of design and construction. A number of good working drawings were submitted, but many of the designs were so utterly sterile that one secretly hoped that the construction was such that the buildings would fall down.

From original creative work we now

turn to the architect's study of the works that men have done before us. There were two entries for the Pugin Studentship. The award was made to Mr. G. M. Harper, who submitted some excellent sections of Gothic architecture and a very delicate drawing of the West Front of St. Mary Bolton. But why does Mr. Harper give a hard silhouette to all his buildings? The Life-Force in Gothic is boundless, the spires and pinnacles climb heavenwards. They must never be caged with a black line.

In the Essay Prize for Public and Secondary Schools, Mr. Little chose an interesting building and wrote about it with sympathetic understanding, and Mr. Whipp, while choosing a less interesting building (in fact, his own school building), has written a very skilful and observant analysis of its qualities. Perhaps the young are more aware! The examiners would also like to congratulate Miss Sayers and Miss Usher on promising essays.

In the Prize for Sketches from Public and Secondary Schools, Mr. Walmsley submitted some sketches of Whiston Church, which showed an awareness for the quality of the space enclosed. It is a pity, however, that all the entries for the sketch prize dealt with churches.

The R.I.B.A. Essay Prize was this year not awarded, for the three essays submitted, consisting of a naïf 'travelogue' about a trip in Italy, a superficial summary of some ideal-city plans and a rather sterile survey of English market halls, were not considered of sufficient merit. The Banister Fletcher Essay Prize for an essay on 'The Art of the Baroque' is awarded to Mr. Silsby, who gives evidence of wide reading and of having a good general view of the subject. But the essays were disappointing, for they failed to find the real spirit of the Baroque and passed on undigested too many text-book facts.

It remains for me to congratulate the winners of the Alfred Bossom Research Fellowship, the Godwin and Wimperis Bursary, the Hunt Bursary and the Henry Saxon Snell Prize.

With so wide a range of prizes, it has only been possible to review the work submitted broadly, paying special attention to its general nature and spirit. But have we found in this spirit what we should hope to find? Have we been able, in the words already quoted of Frank Lloyd Wright, to recognize in it 'the great sense of structure in whatever is—music, painting, sculpture, or life itself?' Have we felt, in the words of Le Corbusier, that 'the work rings within us in tune with the universe?' Has the spirit of the architecture been in accord with the Life-Force? I do not think so.

I cannot believe that the young architects and students of today have no more to offer than this. A visitor to the exhibition of R.I.B.A. prize-work should find himself face to face with the best and most vital creations of a rising generation. I hope that next year and in years to come those with these vital ideas will enter for these prizes. Of all my audience I would speak most to those who are in a position to enter for these prizes next year. I know



The Pugin Studentship. Drawing by the winner, Mr. G. M. Harper (Birmingham School of Architecture)

that the whole realm of architecture needs infusing with a greater understanding of the great art we pursue. Let no-one think I am unfairly levelling my criticism at the student, but let the younger generation show that they have this understanding.

When I look at a competitor's work next year let me be able to say: 'He was a man who used to notice such things'.

EDITORS NOTE.—In giving his criticism, Mr. Tubbs necessarily referred to competitors in the anonymous competitions by their pseudonyms. The names of competitors have been substituted in the foregoing report.

#### VOTE OF THANKS

**Mr. Sydney Tatchell [F]:** To me has been given the privilege and pleasure of moving a vote of thanks to our critic this evening, Mr. Ralph Tubbs, an expression of appreciation which I am sure will be endorsed by everyone present. We have had a very provocative address from Mr. Tubbs, and, had time permitted, I should thoroughly enjoy entering into a debate with him on some of his points.

Criticism of the quality that we have heard this evening is an achievement of no mean value. Except for those upon whom is placed the responsibility of judging all the drawings for the awards, there can be no more exacting and anxious task than that of the critic who has to deal with the drawings submitted; to put oneself, as it were,

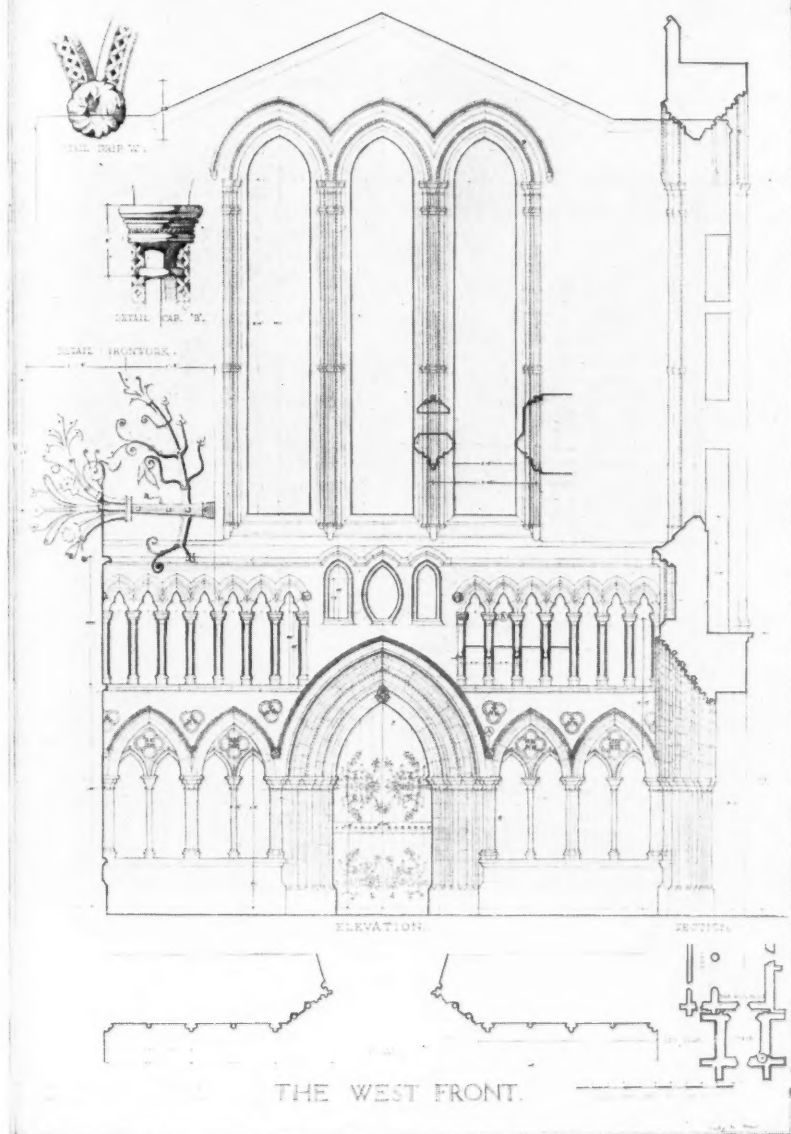
in the mind of the student and at the same time maintain a strictly impartial and detached attitude towards the works submitted; to apply judgement where rightly due, and, as a wise man has said, to wreathe the rod of criticism with roses.

There is a danger when young, and frequently when old, of being beguiled by soft words into a paradise for fools. You have not been beguiled this evening into such a paradise, but it is a good thing to have had a critic such as Mr. Tubbs, and to have suffered, and perhaps enjoyed, the castigation which he has so gently and humorously applied; for, when all is said and done, the verdict of our fellow-craftsmen is of far greater worth than the applause of the multitude.

**Mr. R. Gordon Brown [A]:** It gives me great pleasure to second this vote of thanks to Mr. Tubbs for his distinguished and constructive criticism. It was opportune, and I am certain that no-one will respond to it more quickly than the students. Mr. Tubbs has spoken about the lack of the Life-Force in the present generation of students. I think that that is obviously so, and one of the main reasons for it, of which Mr. Tubbs is as much aware as I am, is that this quality draws a great deal of its strength from a sound and vigorous contemporary architecture; and, unfortunately, the student of today has not much contemporary architecture to inspire him.



# THE PRIORY CHURCH OF S. MARY, BOLTON, Y.



The Pugin Studentship. Drawing by the winner, Mr. G. M. Harper

Mr. Tubbs also referred to the lack of apparent enthusiasm about these prizes, and said he felt that the responsibility lay with the students. I agree absolutely. I have spoken on the other side in the past, but in this competition for the Soane Medallion there was a chance of producing a piece of fine contemporary architecture. Very few people made the effort.

Fundamentally, what is behind this lack of enthusiasm is something deeper than the relationship between the student and the Prizes and Studentships Committee. It is a

question of the feeling of the student about education and educational policy in the R.I.B.A. I think that Mr. Tubbs' criticism this evening, and the knowledge that we now have that contemporary schemes can gain success, and the change which has been made or which is proposed in the conditions for the Tite Prize, show that the old arguments cannot be used today.

In the relationship between the contemporary student and the educational policy of the R.I.B.A., I still hear an echo of the song, 'Daddy wouldn't buy me a Bauhaus'.

Daddy is not going to buy us a Bauhaus, because he cannot afford to buy us a Bauhaus. I think that we must see that in England our architectural education has certain limitations but very great possibilities, and I think that we must stop worrying about the limitations and concentrate on seeing what we can do with the possibilities which we have.

If you believe that there is an architectural future for you as a generation of students—and I think that there is the greatest opportunity in architecture that there has ever been—you must see that the next few years in architectural education are of vital importance. On the other hand, if you do not believe that there is any architectural future for you, there is all the more reason why these years are important because there are going to be at least 6,000 students in a race for very few prizes.

You in your jobs, in this chance which I am convinced that you will get, will be confronted with certain great possibilities. The first is the British people as a whole; looking for a new environment and able to appreciate good architecture.

Secondly, I think that we have made too little use of all the natural advantages which we have for training—the magnificent landscape which we have in this country, our wide range of natural materials, and the architectural and educational possibilities to be found in our cities and in London in particular. These are facilities for training architects with which no Bauhaus or its equivalent has ever been able to show anything to compare.

I think also that if we suffer from a feeling that we are in a rather sterile period, we should remember that, as Professor Thornton White said the other day, British architecture is not confined to the British Isles. To take Africa alone, there is a colossal social experiment going on on the West Coast, on the East Coast, in the Rhodesias and right down to the Cape, involving great changes throughout the continent. A large part of the architectural and planning work involved is being directed by planners and architects from this country.

**Mr. Ralph Tubbs:** Thank you very much. After what I have said this evening about awareness, the voice of things and the Life-Force, in case any of you go away thinking that I have presented an unreal and mystical approach towards architecture, I should like to read a short quotation from a poem by Lawrence:

'They call all experience of the senses mystic when the experience is considered. So an apple becomes mystic when I taste it in the summer and the snows, the wild welter of earth and the insistence of the sun, All of which things I can surely taste in a good apple.'

If I say I taste these things in an apple I am called mystic, which means a liar, The only way to eat an apple is to hog it down like a pig and taste nothing. That is real.

But, if I eat an apple, I like to eat it with all my senses awake.'

# Review of Construction and Materials

*This section gives technical and general information. The following bodies deal with specialized branches of research and will willingly answer inquiries.*

*The Director, The Building Research Station, Garston, near Watford, Herts.*

*Telephone: Garston 2246.*

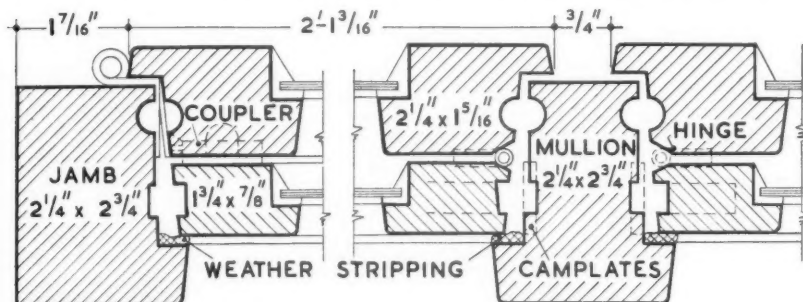
*The Director, The Forest Products Research Laboratory, Princes Risborough, Bucks.*

*Telephone: Princes Risborough 101.*

*The Director, The British Standards Institution, 28 Victoria Street, Westminster, S.W.1.*

*Telephone: Abbey 3333.*

*The Technical Manager, The Building Centre, 9 Conduit Street, W.1. Telephone: Mayfair 8641-46.*



The E.J.M.A. double casement

**The Building Exhibition, Olympia, 1947.** In the two previous issues of the JOURNAL we described some of the exhibits which we thought would merit the attention of the imaginative technician in his search for the best means of solving those building problems that seem to grow more complex every day. The exhibition closed its doors in December last; the New Year is settling down to its stride and will, no doubt, unfold new ideas in materials and technique, so we must turn to the future, but not before we have said a last few words about one or two of the exhibits not previously described.

**Double Windows.** Hitherto double windows have been very little used in this country, and then almost entirely to exclude traffic noise from urban buildings. In the modern search for fuel economy, specialists have talked recently about double windows, pointing out that they are standard practice in countries such as Sweden, which suffer severe winters. In Post-War Building Studies No. 19 (Heating and Ventilation) it was stated that the fitting of double windows to living-rooms alone would save one million B.Th.U's per annum per house, and would justify an increased cost of 2s. 6d. per sq. ft. of windows. If all windows of a house were so fitted an increased cost of 1s. 6d. per sq. ft. would be justified. The savings would be greater in colder districts.

It was therefore interesting to find on the E.J.M.A. stand at Olympia a simple design of double casement, specially designed to meet a possible demand. This is perhaps best described as having the outer pane and frame hung more or less normally and an

inner pane and frame hung by butts from the outer edge of the outer frame (see drawing). Two simple finger catches hold the two frames together. To clean the facing surfaces of the glass, the housewife opens the casement to about 45 degrees, undoes the catches and swings the two panes apart.

Having halved the heat losses through the glass, the designers have gone one better and provided the window with a weather-strip packing in order to do away with the usual heat losses through crevices. Few people realize that these latter heat losses can amount to as much as one-third of the total from walls, floor, roof and glass. The double glazing plus the weatherstrip not only take care of heat losses, but greatly improve sound resistance and help to improve weather resistance.

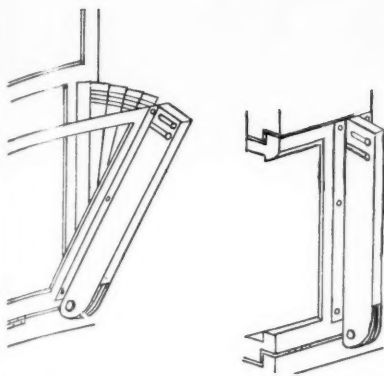
Brooding over this design made it clear that simple window forms are demanded by double glazing. Small panes and glazing bars would be a nuisance to clean and irritating to the eye; hence each light tends to be simple and as large as is convenient. This E.J.M.A. window is designed in an overall width of 4 ft. 6 in. for the pair of casements, one of which has at the top a small top-hung transom light. The actual casement is about 2 ft. 1 in. wide. The frames are made in heights of 3 ft., 4 ft. and 5 ft. B.R.S. have reported very favourably on the design.

**Electrical Installation.** Difficulties in getting metal conduit for carrying electrical wiring have forced the use of less substantial materials, but the potential danger lying in damage to wiring is not one to be taken lightly, and for this reason a new conduit

on exhibition deserves study; it is called Gilflex, and is made for Flexible Non-Metallic Conduits, Ltd., of 208 Tottenham Court Road, London, W.1, who are a subsidiary firm of the North British Rubber Company. The conduit is made of polyvinyl chloride and, being flexible, can be run in unusual positions, thus helping to avoid slotting the joists. Each size of conduit fits tightly into the next larger size, so there is no need for adaptors or reducers. Earthing protection is provided by a bare copper conductor that can be drawn in with the circuit wiring, where it will be protected against damage while preserving continuity. As there are no sharp edges to the conduit, and the interior is smooth, it is claimed that the unbraided type of v.i.r. cable can be used. Gilflex conduit complies with the requirements of non-metallic conduit laid down in Regulation 1305 for the electrical equipment of buildings.

**Collapsible Hopper Wings.** Although ventilating hoppers are a convenient means of introducing fresh air, their supports can be a nuisance; if the wings are solid they look rather ungainly when the ventilator is shut, whereas if they are of the bent bar type there is a chance of someone knocking his head against them, and air can flow in through the open sides instead of being directed upwards. Messrs. Braby have got over both disadvantages by making a hopper with collapsing folding wings, after the style of a fan, which is a neat solution of the difficulty.

**The Logical Coal Bunker.** It is not easy to contrive a really satisfactory position for the storage of fuel, where the size of the house does not allow room inside, and the usual result is that fuel has to be stored in a special shed or in a bin placed in the garden, and if overhead cover cannot be provided the housewife has sometimes to face bad weather when she wants to replenish the stove. This unpleasantness has been got over in the Logical coal bunker, which is a steel unit designed to be built in an external wall so that it can be filled from the outside and emptied from indoors. Two types are available, one for building the unit with the back flush with the inside face of the wall, and the other with the bunker projecting into the room, in which case the top can be covered so as to act as a worktable, or it can come under the draining board. The emptying door can be either at the back or the side. The filling opening is covered with a waterproof lid, and the arrangement of the sloping baffle over the emptying door should prevent coal dust getting into the house. The capacities of the bunker are 4, 6, 8 and 10 cwt., and the stock sizes range from 24 in. by 28 in. by 32 in. high to 33 in. by 42 in. by 34½ in. high. A weather bar is provided, extending right round the bunker. The appliance has been adopted by some of the leading housing authorities. Full details may be obtained from the Production Department, Logical Coal Bunkers, Tavu Works, Waterloo, Huddersfield.



MESSRS. BRABY'S collapsible hopper wing. Left: open. Right: shut

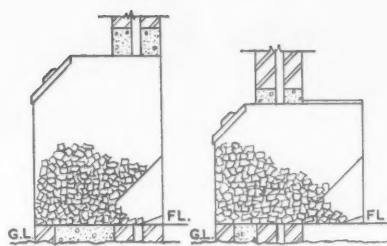
**Ministerial and other Bodies.** Of all the Ministries those of Works and Health are no doubt the two most intimately connected with the building industry, and it was pleasing to find that they were not adopting an attitude of Olympic detachment but actually had stands where courteous representatives answered the same questions with unfailing good humour and interest. The stands were in the gallery, forming a joint exhibition with the Department of Scientific and Industrial Research. Among the exhibits of the Ministry of Works were models showing the effect of using glass silk blankets for sound-deadening of floors; the Ministry of Health had diagrammatic models explaining daylight factors; there were also models and drawings of the 3-storey town house, showing different arrangements to suit the needs of various families. The D.S.I.R. showed a cyclograph for time and motion studies; models of the Airey house and the aluminium bungalow; photographs of various rural housing schemes, and exhibits demonstrating the effect of colour in factories, a subject that is receiving a good deal of attention and is likely to lead to more comfortable working conditions, thus showing that research can make a great difference in everyday matters that are usually taken for granted.

The exhibits of the Council of Industrial Design were particularly interesting, as they had arranged a series of cubicles each containing a period heating stove set in its appropriate surroundings; the first stove was of the year 1875, the next 1890, then 1930, and the last 1946-47. The first had hardly an inch of surface that was not 'ornamented', while the last had no ornamentation at all, and the series was an object lesson in the changes of taste and fashion that have taken place since 1875. The comments book on the stand made interesting reading; apparently the 'porridge' finish of some modern stoves is not to everyone's liking.

The C.I.D. also displayed three bays in a stand showing how three married couples would like to furnish their homes, with the aid of architect designers. A Tyneside steel fitter and his wife worked in collaboration

with Mr. Neville Ward [4] in furnishing a living-room and kitchen; a Worcestershire couple had Mr. Guy Pemberton [F] to assist them with their combined kitchen and living-room; and a chemist and his wife co-operated with Miss Judith Ledebor [4] in furnishing their living-room. Each family worked to a budget fixed by themselves, and the results showed pleasing solutions to modern problems, but apparently the couples had one advantage—they were entitled to utility furniture units and priority dockets for textiles and floor coverings. And so, goodbye to the Building Exhibition, Olympia, 1947.

**Fibre Building Boards.** The extent of 'Information for Architects' has been increased by a booklet recently published. It is called *Fibre Building Boards* and has been written as a result of the pooling of technical knowledge and experience by firms in the fibre building board industry, and contains the results of the latest research based on memoranda prepared by the technical committee of the Building Boards Joint Committee for the post-war directorate of the Ministry of Works, revised and brought up to date. The contents include fibre building and insulating boards, thermal insulation, sound control, wallboards, hardboards, wall construction, floor, ceiling and roof construction, methods of fixing, joint treatment, and surface finishes. There are charts reproduced from *Fuel Efficiency Bulletin* No. 12, dealing with fuel consumption and savings, in connection with thermal insulation; a photographic supplement illustrating buildings in which fibre building boards have been used, and appendices giving summaries of technical data, such as uses and sizes, thermal data, thermal co-efficients and resistances, comparative transmittances, officially recommended transmittances, and transmittances of typical constructions. Thus the booklet brings under one cover information that is spread about in a number of publications; not always to hand, perhaps, when wanted. The sections on construction contain drawings showing recommended methods which, even if they do not give any innovations, are useful for reference. Under the heading 'Fire Resistance', the booklet points out that in the modern scientific consideration of the resistance of fibre building boards to fire, there are two distinct aspects: the rate of flame spread across the surface, and the resistance to flame penetration. The four classes of surfaces, from the point of view of flame spread, are repeated from British Standard 476/1932, and it is pointed out that these classifications of fibre building boards refer to the materials in their natural states, and do not take account of any treatment that may be applied to the surfaces and which will raise their classification, as is established by tests. A co-operative programme of research has been undertaken by the B.R.S. and the Building Boards Joint Committee to ascertain the behaviour of various types of floors incorporating fibre boards, and the results are given, so far as they have been ascertained



The Logical coal bunker. Left: flush. Right: projecting

up to date. An interesting note is given on pattern staining on ceilings, an appearance which is useful for showing which way the joists run, but has not much else to say for itself. The note says that it can be shown, theoretically and by experiment, that particles of dust suspended in air will tend to be directed towards a surface cooler than the air. If, therefore, parts of a ceiling are cooler than others by reason of their higher thermal transmittance, dust will more readily be deposited on them. In a timber lath and plaster ceiling, the rate of heat transmission is least through the joists, greater through the plaster and laths, and greatest through the plaster between the laths. In hollow tiled floors the transmission rate is less through the tiles than it is through the concrete beams between them.

The booklet may be obtained from the Building Boards Joint Committee, Melbourne House, Aldwych, W.C.2, price 5s. post free.

**B.S.S. 1369/1947.** Metal lathing (steel) for plastering. This specification covers mild steel lathing for plastering, and has been prepared at the request of the Codes of Practice Committee engaged in the preparation of a code for the finishing of walls and it covers five types of mild steel lathing. Methods of construction are specified for each type, and there are general clauses covering material, size of mesh, minimum weight of sheet, and tolerances on size and weight of sheet. Copies may be had, price 1s. each.

**The Building Centre.** A Press meeting was held at the Centre on the 5th inst. to celebrate the practically full restoration of the building after war damage. Mr. F. R. Yerbury [Hon. A], the managing director, said that the Centre was very conscious of the needs of students in becoming acquainted with materials and equipment of high quality, and to this end lectures and special evening visits are arranged, under the guidance of the technical staff. A special section, under the direction of a committee of well-known school architects, has been formed to display school equipment, a matter of importance in view of the Government's school building programme.

The Centre hopes that firms will change their exhibits more frequently, so that the exhibition may be kept as up to date as possible.



# Choice of Structural Type and its Cladding

By R. Llewelyn Davies, B.A. [4]

Read at a Meeting of the R.I.B.A. Architectural Science Board on 2 December 1947. Dr. J. L. Martin, M.A., Ph.D. [4] in the Chair

THE SUBJECT about which I am going to talk to you tonight is rather difficult to define. The title, 'Choice of Structural Type and Its Cladding', was the best that the A.S.B. Lectures Committee could think of, and I was unable to better it. As a title it certainly suffers from a lack of box-office appeal—and it is not even quite accurate, as the word choice implies a sort of shopping expedition round the stalls at the Building Exhibition. That the choice in practice often has to be made in this way is the unfortunate experience of most architects. It was not so in the past—then the choice and structural use of materials were an integral part of creative design. The architect of those days could rely in these matters on his instinct or flair—the automatic and unconscious use of his experience. Today building needs are too complex, and technical advance too rapid, for this to work. Some form of scientific approach is necessary if we are to recover our control over technique.

Scientific choice, however, is not an easy matter as the number of variables is very great; and the qualities to be balanced are often incommensurable. In fact, there can be no strictly logical approach to a building problem, in the sense that there sometimes can in engineering. What is possible, however, is to collect and set out all the relevant data in a systematic manner, and to subject a series of alternative solutions to scientific criticism and checking.

The extent to which such a study can be carried before arriving at a decision depends on the size of the building programme involved. At one end of the scale there is the housing programme, which is organized on a national basis. The very extensive research and development programme which is being carried out for housing was described in detail by Professor Bernal in a paper read here on a previous occasion<sup>1</sup>. At the other end of the scale there is the individual building which rarely justifies the expenditure of much time or money on preliminary research. Intermediate between these two extremes comes the building programme executed for a public authority or large industrial or commercial unit. The types of building include schools, factories, multiple shops, banks, railway and bus stations, canteens and public houses. The amount of money, materials and manpower involved in these pro-

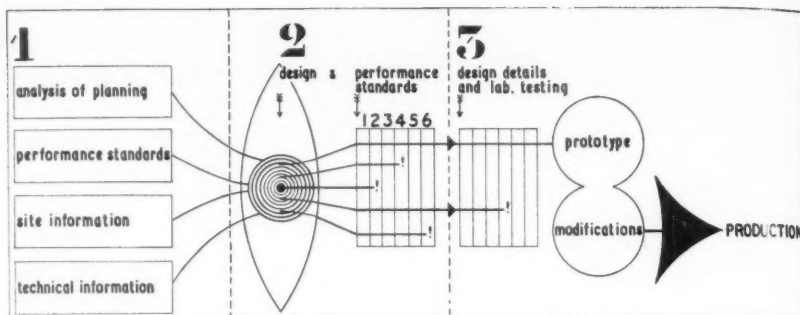


Fig. 1: Diagram of a Research and Development programme

grammes often make necessary, in the interests both of the client and the nation, a very much more stringent examination of building method than is required for an individual job. Fortunately, the necessary conditions for systematic study are often present in such cases. These are: (1) A reasonable period for preliminary work; (2) funds for payment of staff, testing and the manufacture of prototypes; (3) available scientific personnel and laboratory facilities.

Where such conditions are satisfied it is possible to plan and carry out a research and development programme which will give the designer the facts on which to base his choice, and the power to check his decisions in a scientific manner. The technique which I am going to describe is, in its full form, only applicable to a fairly large building programme. Its logical framework is, however, of general application, and within it the actual work can be telescoped to suit the time and resources available in a particular case. A condensed, but systematic, study on these lines was described in the R.I.B.A. JOURNAL for September 1944.<sup>2</sup> Here the time available for the choice of structure and materials for a series of war-time canteens was only about two months, but it was found possible to make a comprehensive survey of the problem, and to do some experimental work with a prototype structure. As a result firm decisions could be taken on a sound basis before the building programme began.

A research and development programme falls into three main stages. These are:

- I. Analysis and Survey.
- II. Design.
- III. Development.

These stages are shown diagrammatically in Fig. 1. The first stage, Analysis and Survey, includes all the work that should be done before the architectural and, therefore, the structural, form has crystallized. The obvious starting point is the analysis of the requirements arising out of the use of the buildings. A clear picture of these requirements must be obtained before any structural solution can be visualized. Unfortunately, it is a common experience among architects that those who are going to use a building very often cannot give a clear account of what they want. This is generally due to their difficulty in getting away from preconceived ideas based on

existing and, perhaps, unsuitable accommodation. When this happens, a joint study by the architect and the user has to be made. This will often take the form of a piece of operational research. Original work of great interest is going on in this field, which is being studied by an Architectural Science Board group, but it is rather outside the scope of this lecture.

Assuming that a picture of the necessary accommodation has been obtained, the next thing is to break it down into some sort of units, which will lend themselves to structural treatment. The unit may be a room, such as the classroom in a school or the bedroom in a hotel, or it may be a volume defined by use, such as the vehicle spaces in a garage. Except in the special case where all the buildings in the programme are identical, like the temporary houses, a planning grid should emerge at this stage. The exact dimensions of the grid need not be fixed yet, but one important consideration should be borne in mind. That is that in all buildings the smallest plan units: passages, W.C.s., stairs and door openings, are all fixed by a particular dimension of the human being—his shoulder width. It is therefore wise to keep this rather basic dimension in view, and use multiples of it for bay spacings and structural grids wherever possible. Otherwise some waste will inevitably result.

Another function of the requirements are the performance standards required for parts of the structure. These should be worked out and listed. In most cases the following standards will be of use:

1. load-bearing properties, for floors and roof.
2. heat insulation, for external walls and roof.
3. sound insulation, for internal walls and floors.
4. sound absorption, for wall and floor finishes
5. daylighting, for windows;
6. usage of scarce materials, generally.

In addition, any particular building programme will generally require some special performance standards. For instance, in office buildings the partitions may have to be demountable. Again, special standards of resistance to wear or weather may be set.

It is useful when considering performance to distinguish between what may be called 'pass' standards and 'honours'

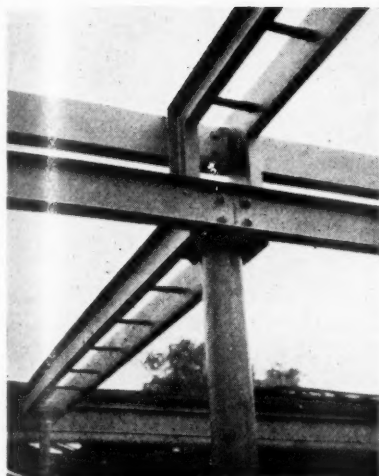


Fig. 2: The roof steelwork for the prototype building. The main frames were built up by shop welding. Site connections were bolted

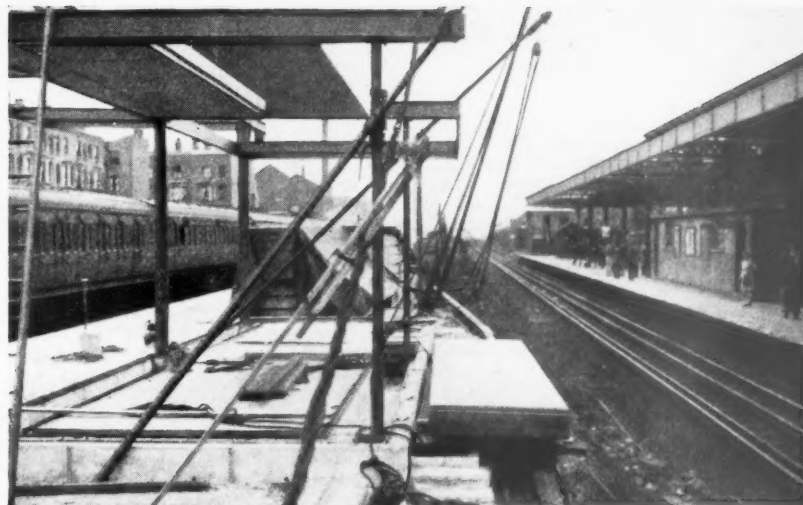


Fig. 3: The erection of stress-skin roof units on the prototype building. The units slid into the channel sections forming the main frames

standards. The load-bearing properties of a floor, for instance, are generally required to reach some given figure. There is no advantage to be gained if this figure is exceeded. This standard is therefore a 'pass' standard, to which any system must attain, but gains no credit for surpassing. On the other hand, heat insulation may be regarded in some cases as an 'honours' standard, that is to say, there may be a range of acceptable values within which a system having the higher value would be preferable to an otherwise equal system with a lower one.

In setting the standards just described, the ultimate cost of the building will to some extent have been determined. It is not, however, necessarily the case that the higher the standards the higher the cost, if maintenance and running costs are taken into account, as well as the initial capital outlay. In fact, a higher standard of heat insulation may actually reduce the cost of the building in the long run. While the general cost background to the programme should be kept in mind, it is therefore best to set no definite price standard at this stage. Useful cost comparison becomes possible later when considering alternative solutions.

Two surveys are required to complete the work in the first stage; one for the site conditions and one on the available range of structural and cladding materials. The site survey should include information about the nature of the soil, the gradients, access and transport facilities, and geographical position. These factors may all affect the choice of structure and materials, and are particularly important where a number of widely distributed sites are concerned. A design logical enough for a site in the Home Counties near a railway line may be disastrously unsuitable in a remote village in Wales. The collection of information on available materials is a simple routine matter. Most architects' offices will already possess much material on their files, and all that has to be done is to

assemble the appropriate portions in a convenient way, supplementing it with additional inquiries as necessary. A recent A.S.B. lecture has dealt with the sources of information in a very comprehensive manner.<sup>3</sup>

We have now reached the limit to which preliminary work can be taken without considering any actual designs. The next stage, the embodying of the requirements in the form of an actual structure, is a complex process very difficult to describe. I have called it the Design Stage, because it involves a creative synthesis of the requirements and the available technical means. Because the process is essentially one of creative design it does not mean that it excludes all logical treatment, and it is useful to see how far such an approach can take us. I think it is true to say that there is no deductive technique by which a structural solution can be found to a building problem. Thus the inductive method, or successive approximation must be followed. This means in practice making outline designs in a variety of alternative systems, and then checking back as to how they fulfil the needs.

In making these designs, some assistance can be found in certain theoretical studies on the problem of choice in limited fields. These studies consist in taking two variables only out of the very many usually concerned, and investigating their relationship. For example, the Egerton report on the heating of dwellings contains an important treatment of the relationship between the first cost of insulation and the annual cost of heating, and gives a theoretical guide to the economic amount of insulation required in a given case.<sup>4</sup> Similarly, an Architectural Science Board lecture by Mr. P. O. Reece included a discussion on the strength : weight ratio for structural materials, which gives a method of determining the most economic materials to be used, from the weight point of view, for given conditions of stress.<sup>5</sup> This particular study has, for obvious

reasons, been developed mainly in connection with aircraft design, but is also of considerable service in structural engineering. It is also treated in a very interesting manner in a recent article on the theory of sandwich construction.<sup>6</sup> A large field to which these limited comparisons can be extended is the ratio between first cost and maintenance cost, for example, in the case of window frames constructed from different materials. Some material is also available on the relationship of span to cost in steel and concrete frameworks. These theoretical methods can, however, only be applied within the framework of a design.

Turning back to the process of trial and error, it will often be found that some of the special requirements give a starting point, for example, the plan may determine the spacing of the main supports, the daylighting standards may decide the question as between frame and bearing wall, a special wall finish may imply a type of wall construction. That, I think, sums up the extent to which logical processes can be brought to bear, and the gap that remains has to be filled by the imaginative powers of the designer.

Having developed a number of possible alternatives, the next step is to make a tabular comparison of performance. The 'pass' standards need not be included at this stage, as they will have already done their work by eliminating unsuccessful systems. The actual headings of comparison will vary according to the type of building. For the canteen programme mentioned earlier they were as follows:

1. Cost: (a) materials cost; (b) erection cost.
2. Speed of erection in man-weeks.
3. Delivery delay.
4. Use of controlled materials: (a) steel; (b) timber.
5. Maintenance cost.
6. Insulation value: (a) walls; (b) roof.
7. Number of trades on site.
8. Ease of transportation.

9. Daylight. (Assessed for types of construction with limited window area.) These tabular comparisons cannot be used to give a mechanical or numerical answer, but merely provide in a clear form a picture of the alternatives. The final decision, which involves the weighing of many incommensurable factors, is therefore a matter of judgement. Generally speaking, at this stage, it will be possible to reduce the alternatives to one or two main types. Within these types, however, there will still be a wide range of alternatives.

The next stage is that of Development, the filling in of details and the choice between alternative cladding materials and finishes. It is now that it becomes possible to draw on scientific knowledge and methods to the fullest extent. The part that science can play is symbolized by that useful instrument, the accelerated weathering machine. Just as this machine simulates the effect of years of exposure in weeks or months, so in other fields scientific testing can give us information which would formerly have taken years of experience to acquire. The actual programme of development tests will vary greatly for different types of building.

Rather than attempt to discuss such work in general terms, I propose to describe a series of tests that were carried out in an actual case: the L.M.S. station building programme.<sup>7</sup> By the time development work began certain basic decisions had already been reached. Planning considerations, and the need to reduce site work to a minimum, had led to the choice of a welded steel frame construction for roofs and awning, and this frame had been designed to carry light, long span roof decking units, Figs. 2 and 3. For the external wall finish there were special requirements; easy cleaning, low maintenance and high resistance to corrosion. Taken in conjunction with the need for the walls to be demountable, this had led to the choice of vitreous-enamelled steel panels for the exterior cladding.

At the beginning of the development stage the following points remained to be settled:

1. The design of the long span decking.
2. The quality of the vitreous enamel and the method of jointing panels.
3. Method of fixing the panels to withstand heavy vibration.
4. Material for a plinth panel to resist heavy impact and scoring.
5. Materials and design for the interior wall lining.

A programme of laboratory research, supplemented by tests on a prototype building, enabled decisions to be made on all these points.

The long span roof units were designed originally as stressed-skin plywood boxes, the design being based on data obtained by testing a number of full-size units in the laboratory. The units were progressively loaded and deflection readings taken in the ordinary way. The unit thus evolved has a high strength : weight ratio, and is theoretically an economical solution. Under present

conditions it is open to criticism in that it uses plywood, even though it uses it in a highly efficient way. For this reason an alternative roof was also developed, using a box section purlin, decked with wood-pulp slabs. Here again, the design of the purlin depended on laboratory tests.

To test the effects of vibration and impact on the wall a 10 ft. 0 in. x 8 ft. 6 in. section was put up in the laboratory, Fig. 4. This section was then subjected to mechanical vibration of a frequency and amplitude greater than the worst found to occur on the sites. Impact was applied by allowing a loaded platform barrow to run down a ramp from various heights and crash into the wall, the blow being recorded by a film camera. Finally, a 'malicious damage' test was made by throwing stones. This last test gave a good deal of pleasure to those carrying it out—if not to the designers. The vibration and impact tests, together gave data which ensured that the fixings used would stand up to service; in fact, the original methods were found to be unnecessarily strong, and the tests enabled considerable economies to be made with confidence. The impact tests were also used to choose a type of plinth panel.

A mastic material was required to fill the joints between the enamel panels, and a range of materials was submitted to tests designed to measure their adhesiveness, water resistance, resistance to deformation under load, and durability. Their behaviour under vibration was also observed in the tests just described. The scientists concerned also contributed to the design of the joint, and a solution was eventually found in which all the edges and fixing holes were kept 1½ in. away from the face and protected by a mastic seal, Fig. 5. The vitreous enamel itself was subjected to a good deal of study. A range of laboratory tests was designed to enable manufacturers' samples to be checked in the light of the anticipated service conditions. The tests included exposure in the accelerated weathering machine, exposure to engine blast in a railway tunnel, and exposure to acid fumes, boiling and thermal shock. The ease with which the enamel could be cleaned, after heavy deposits of grime, was also checked. The first samples gave inadequate performance, but progressive improvements were made by the industry to meet the special requirements for use in buildings. The final enamel which was approved had a performance under accelerated weathering many times better than the original samples, and could be expected to have a very long life indeed.

The interior wall lining raised problems of heat transmission and condensation. A target figure of 0.25 had been fixed for the thermal transmission coefficient. It was found very difficult to arrive at a calculated figure for the wall construction, owing to the method of fixing to steel wall posts. The walling was put up to form a room of approximately 7 ft. 0 in. cube for laboratory heat loss tests. A range of different insulating methods for the wall linings, including metal foil and cork, was subjected to test. The trials covered not only alter-

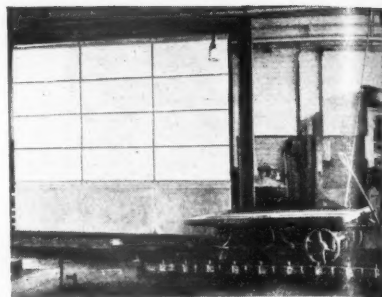


Fig. 4: The wall assembly used for vibration and impact tests. The platform barrow and ramp are shown arranged to give a glancing blow

native materials, but also alternative positions of the insulating layer. The results gave figures which enabled the probable performance of most types of insulation to be forecasted with fair accuracy, and enabled choice of the most economical solution to be made.

The conclusion of the laboratory tests brought development to a point where a prototype building could be designed and built. A prototype building has two main purposes:

1. To give data on erection times and costs which are an essential check on design.

2. To complete the scientific testing. It is found that performance in certain fields, for instance heat loss and fuel efficiency, can only be properly assessed in full scale trials.

Again weathering and cleaning properties can only be partially simulated in a laboratory.

To get erection times and to be able to estimate the cost of actual buildings, from experience with a prototype, scientific timing of the building operations is essential. In the case just described the Building Research Station made a detailed time study of the erection of the prototype. The results of this study were a valuable criticism of the design from the point of view of economy in site labour, and in fact pointed to several important modifications. For example the sliding of the roof deck units into the channel roof members was found to be slow, and the roof steel was revised to overcome this. The actual time and cost expended in erecting a prototype is, of course, no guide to the probable site costs once a building system is in production. A detailed time study, however, enables the probable site times to be estimated by deducting time spent in trial and error on the prototype. Hence a fair picture of the site costs to be expected can be built up.

After the prototype had been completed, Fig. 6, it was used for a further series of scientific experiments. Heat and fuel efficiency records were kept over a winter season, and periodic inspections were made to record the behaviour of all parts of the building under ageing and weathering. Cleaning trials of the enamel were made with various methods after varying periods of exposure in a bad atmosphere. Finally, a special series of tests was made to check



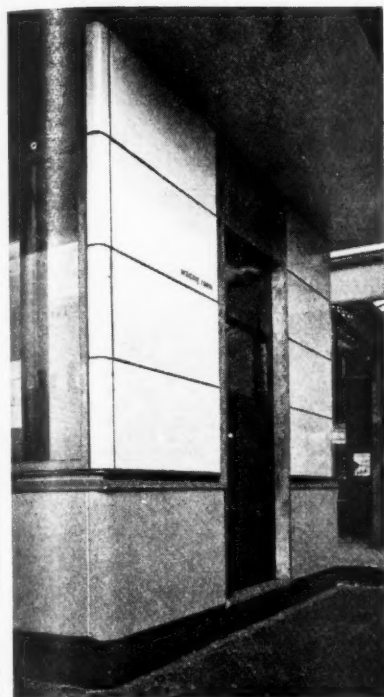


Fig. 5: Enameled iron panelling with mastic joints, on the prototype building

vapour penetration through the walls and roof, with the object of discovering whether condensation was likely to take place inside them. These tests were especially interesting, and a new technique was devised by the scientists who carried them out.

*At this point a cinematograph film was shown, on which the lecturer made running comments.*

The completion of tests on the prototype brings the development stage to a close. From this point onwards the buildings pass into the production stage. The process of critical study should, however, continue. Even where a prototype building has been put up, which will not always be possible, modifications and improvements are bound to arise in practice. It is therefore important that a systematic reporting on the performance of the actual buildings should be carried out. Any proposed changes in the building system should, however, not be introduced piecemeal, as the need for them becomes apparent, as this is apt to disorganize site organization. So long as the system is reasonably satisfactory, it is better to delay making any changes until a reasonable number of modifications have been decided on. It is then possible to introduce them simultaneously at a certain stage in the building programme. Present conditions involve a great deal of forward planning, which must not be interrupted unnecessarily.

Finally, a word should be said as to the effect of this type of work on the development of architectural design. It can play a

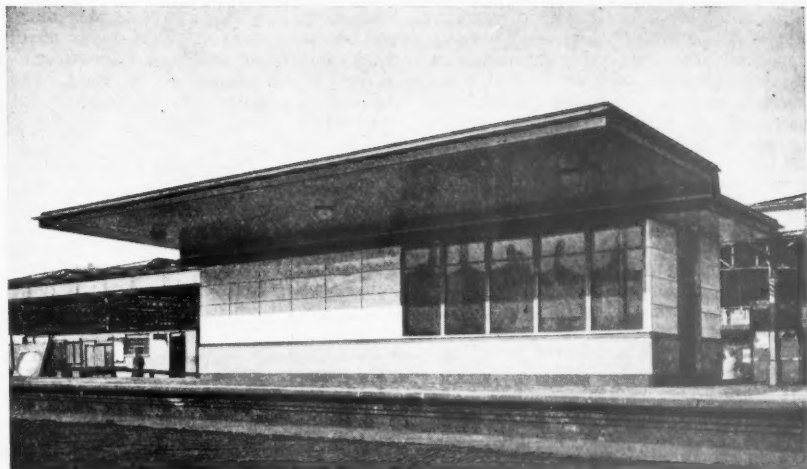


Fig. 6: The prototype building, completed

significant part, in fact, I think it is essential, if we are to develop a truly contemporary style suited to the problems and building methods of our time. I would therefore like to place it in some historical perspective.

If we look back to a period when architects showed a confident mastery in the choice and use of technique we have, as usual, to go to the 18th century. The choice exercised in those days was largely unconscious, and was based on many years' experience, and progressive refinement, in the handling of a limited range of materials. The architect, though he may not have realized it, was drawing on a large fund of research and development work going back over centuries—he did not have to produce an impromptu solution to a complex problem, like the design of a sash-window. In fact, traditional knowledge had even produced a large measure of voluntary standardization in many fields. This standardization was free from harshness and monotony, because it arose from the needs of human beings expressed through architecture. In fact, it aided rather than hampered design. The industrial revolution broke up this tradition in two ways—in the first place very many new types of buildings became necessary, and in the second place a large variety of new materials and methods was developed. In the 19th century few architects achieved a rational choice of structural type or cladding—the few inspired exceptions only exposing the general chaos.

The general failure of design during the period is, at least partly, to be attributed to this cause. This is seen when pioneer modern work, such as the early buildings and writings of Gropius and Le Corbusier, is considered. The emphasis then laid on the architectural significance of building technique, the interest in engineering form, the experimental use of new materials, all reflect the need felt by the architect to recover his lost technical mastery. In their pioneer work these architects lacked the material conditions for the sort of study I

have been describing. It is a measure of their greatness that nevertheless, by creative imagination, they were able to show the way forward in broad outline. It now remains to us to consolidate their achievements. I believe that the development, and extension into wider fields, of the sort of work I have tried to describe is essential for the future of architecture. Architects who work in this way are building up a body of knowledge and experience which will be the modern counterpart of tradition. Perhaps even more important, they can win back the initiative in technique from the manufacturers and suppliers, where it is now, to architecture. When this is achieved we shall not *choose* structural types, or cladding—we shall be creating them.

I must, before sitting down, say that none of the work, nor the ideas, which I have been describing to you could have been developed without the support of the L.M.S. Railway Company, my employers. The work was sponsored by the Company's Building Research Committee, whose chairman was Sir Alfred Egerton, Sec.R.S. This committee drew on the work of the company engineers, architects and scientists, all of whom made substantial contributions. My own thanks are specially due to my immediate chiefs, Mr. W. H. Hamlyn [F], the company's architect, and Dr. Martin [A], and also to my own assistants in the development section.

## DISCUSSION

Mr. S. B. Hamilton said the scheme which the author had shown diagrammatically was very similar to, if not based on, the scheme which was devised for dealing with housing, especially with regard to the analysis and the performance standards. In the early days of the present housing drive there was very little knowledge of what performance standards should be. People had lived for a long time in the traditional type of house and had become accustomed to certain standards and took them for granted; but the Egerton Committee showed that standards of heating,

which were more or less satisfactory in days of very plentiful cheap coal, were no longer economical in present circumstances, and the standards of heat insulation for new houses had had to be considerably improved. A similar problem arose in station buildings. It was assumed that it was not precisely the same because railway passengers did, in cold weather, enter waiting-rooms with overcoats on, and it was to be supposed that booking clerks were inured to fierce draughts! However, some standard had to be set because, even on the L.M.S., in cold and foggy weather, trains did sometimes run late and passengers got chilled as they waited. Although the standards might not be the same, they had to be settled.

He recalled in a Northern town a big bridge building company which did practically all their assembly work out in the open air. There were workshops round the edge of an almost open field. That company were successful in their tender for a large bridge to be built for Africa, so they put walls up and a roof over the space and converted it into a shop, with corrugated sheeting for the walls and a steel frame. There were a number of shops still carrying out work in Britain under those conditions, with scant means of protecting the men working there from the cold. Then again standards of performance were not definitely settled, but some day perhaps the standard of heat insulation for workshops would be the subject of experimental study. There was also the problem of sound insulation to be considered. As one of his colleagues had pointed out, sound insulation of traditional use was good enough in the days of the piano but was not good enough in the days of radio. Therefore, standards of performance again had had to vary with changing standards of living.

**Mr. P. Johnson-Marshall** [A] said he knew quite a number of architects who felt disturbed about the approach to architecture existing at present, but whether they were disturbed or not, it would appear that a study of conditions concerning building during the last 15 years indicated an increasing use of techniques which involved the use of machinery. He felt sure that more work would be done under conditions of control and less would be done on the site, and in that connection he desired to mention a significant point concerning components, namely, that building components—and there would be new ones—would have to be designed by somebody, and it was there that the architect had a choice to make. One was to accept the components designed by engineers, scientists and manufacturers, and the other was to have an architect join the team of designers and concern himself entirely with design of the component. In the former case factors governing design were likely to include efficiency from the aspect of both performance and ease of manufacture, but they might easily omit the factor which was vital, namely, the aesthetic factor. If the architect adopted the second alternative, which was the one which had obviously

been adopted by the lecturer and his office, and became a member of the design team, there would be no danger to aesthetic architecture. In an office such as the L.M.S. Railway Company the development of components and technique could be ideally carried out in connection with large programmes of building of a similar character.

Before the war the cost of organizing assembly, arrangement and design of the minute building components was so great that it made the architect-designed house too expensive for Mr. Everyman to purchase. He suggested, however, that the pioneer work which had been done by the lecturer and his department would overcome that problem together with many others, and should result in architects making an improved contribution towards the community.

**Mr. M. Hartland Thomas** [F] said he had followed from afar the production of the unit station with the greatest interest and much hope. He would like to hear how it was making out in practice, and how those units were being used in the ordinary current work of design. News of present developments would be welcomed.

**Mr. M. D. Robinson** [L] asked if the author was really satisfied that the use of iron was suitable for outside cladding. It would seem that it was a valuable structural material, but apart from that it had very great conductivity. He could not help feeling that scientists might possibly find something better.

**Mr. G. B. Oddie** [A] said the author stated in his paper that one of the functions which the construction described would have to play would be that of being taken down again and re-erected in another place. It would be interesting to know whether the original experiment with the prototype included demolition and re-erection in that programme. It had been seen how one particular structural type had been very scientifically and logically chosen and backed up by inspiration and architectural hunches, but there would be a large number of schemes which did not fall into any of the three sorts of programme which the lecturer outlined at the beginning of his paper, that is, the national housing programme, the small individual building to which that sort of development was completely inapplicable, and the large repetitive type, schools, banks, etc. There was bound to remain a large individual problem where, in order to keep the cost—if perhaps not the cost, the method of building—in line with changing economic and social developments which were demanding the new approach to architectural design, there would have to be some form of standard structure and standard cladding.

The subject of the design of cladding was one into which considerable research was needed. It should be the subject of Architectural Science Board research to find out what would be an economical size, shape, material, and so forth, for that

cladding, and it would need a light framework of some sort such as was shown in the latter part of the film. If that light framework were to be used, it was to be hoped that it would perform some other function than merely taking cladding. The sort of thing he had in mind was that it would become a kind of stressed-skin construction.

**Mr. D. L. Medd** [A] asked whether the lecturer could give a very rough idea of the present production run of components described, merely to find out what sort of modifications it would be necessary to make to some of the units described in order to compete with present-day conditions. It would be very surprising if the timber content did not require to be reduced, and it would be interesting to know in what way the author was reducing timber content in order to compete with present production problems. It would also be interesting to know whether the points described in the prototype were being considered for use in other building types, or whether they were being restricted to stations. If they were being restricted to stations the further question arose as to whether they were being restricted to all stations or merely to the small types of stations.

**Mr. R. Llewelyn Davies** said that Mr. Hamilton made a very important point when he said that performance standards were not a permanent law, but, like even our most cherished laws, should be open to revision from time to time. They did need watching. They were extremely useful things to have, but if they were kept on after they were out of date, more harm was done than good. With regard to waiting-rooms on railway stations, he had some good news for Mr. Hamilton as experiments were being made with floor heating, which would remove the terrible bugbear of the traveller—cold feet. So far as the booking clerk was concerned, he had not been forgotten, and work was being carried out on a type of window composed of membrane which was transparent to sound but opaque to draught.

Mr. Johnson-Marshall raised a very important and difficult problem when he mentioned the question of building components. First of all, he agreed that the sort of work he had been describing could create a demand for better components, but the fact should not be concealed that not all the programmes, large though they were when compared with a small house, were big enough to use mass production quantities. They used batch quantities but did not demand mass production quantities, and he did not think any programme apart from housing was likely to do so; therefore, the problem did come down to dimensional co-ordination. It was a problem which the profession had to consider very seriously. How were standardized components to be obtained which were good in design?

Mr. Robinson asked whether he was satisfied with steel as outside cladding, and the answer was, of course, no. The problem was that a vitreous surface had to be used,

as there was nothing else which gave an equivalent performance. They were limited to tiles, glazed bricks, glass, and enamelled iron, and in that range there were special reasons why enamelled iron gave service which could not be found with other materials.

Among the several points raised by Mr. Oddie was the question as to whether or not demountability of a construction should be tested. That would be done. The prototype had not yet been taken down, but it would soon come down and be re-used elsewhere. He also raised a question concerning the large single building, and asked what could be done to develop a solution to the problems he mentioned. It was obvious, in connection with very large single buildings like the United Nations Organization headquarters, that the total cost involved was sufficiently great to justify considerable preliminary research. A proposal was mentioned for the development of a type of cladding which sounded very interesting, but it did seem that the way forward with regard to those problems was to start from the building problem and not from the solution; in other words, a start should be made by thinking of the particular building problems which had to be solved and working from that end as far as possible.

Mr. Medd asked about modifications to meet the present state of material short-

ages, particularly with regard to the reduction of timber content. That problem was being tackled by the elimination of plywood units and the substitution of box plywood beams at fairly wide intervals between the main steel. For the spans which were necessary, one was more or less limited to steel or timber, and precise judgement as to which would be more economical was not very easy; but for long spans and light loading conditions the solution was generally found to be timber. Where loads were concentrated there was a case for steel, but where they were small and widely distributed timber had advantages.

Mr. Medd also asked whether the structural system shown in the film was used for other purposes besides stations. So far as the walling system is concerned, this was a solution to a special problem; the problem of the wall facing on to a railway platform. Being under awnings these walls were subjected to specially severe grime deposit and corrosion attack, as they never received any rain washing. Therefore, it would be readily seen that it was a special construction for a specific purpose. The roof construction and internal partition system were, on the other hand, of general application, and were being used for many other types of buildings.

As to how the thing worked out in practice was rather a long story. One of the advantages was the great reduction in

office work. There were standardized assembly drawings which showed in book form all possible combinations of units. Once they had been drawn there were no more working drawings other than  $\frac{1}{4}$  scales for each particular building. The resultant economy in office work was very striking.

The Chairman observed, in connection with the lecturer's last remark, that although there was a reduction in the number of drawings required, there was no limitation in design. In that field the individual ability of the designer still had full play.

#### REFERENCES

1. The Organization of Building Science Research. Professor J. D. Bernal. R.I.B.A. JOURNAL. April 1946.
2. Some Aspects of Building Production. R.I.B.A. JOURNAL. September 1944.
3. Sources of Information for Architects. Colin T. Penn [A]. R.I.B.A. JOURNAL. November 1947.
4. Heating and Ventilation of Dwellings. Post-war Building Study No. 19. H.M.S.O. 1945.
5. Recent Experience in the Design of Timber Structures. P. O. Reece, A.M.I.C.E. R.I.B.A. JOURNAL. March 1944.
6. Theory of Sandwich Construction. A. Garrard, M.I.Mech.E. BRITISH PLASTICS. September and October 1946.
7. ARCHITECTURAL REVIEW. March 1946.

## The Architects' and Surveyors' Approved Society

WITH THE coming into force of the new national insurance scheme the Architects' and Surveyors' Approved Society has been wound up. The Society came into existence in 1912 as a society approved by the Ministry of Health under the Act passed in that year to provide national health and pensions insurance for those in receipt of a salary not exceeding £250 per annum. The Society was formed jointly by the Royal Institute, the Chartered Surveyors' Institution (now the Royal Institution of Chartered Surveyors), the Architectural Association and the Association of Architects, Surveyors and Technical Assistants (now A.B.T.), so that the architectural profession should have its own society rather than make use of insurance companies. Mr. F. R. Yerbury [Hon. A], then Secretary of the Architectural Association, took a leading part in the formation of the Society, and acted as Secretary for a time. The Committee of Management consisted of representatives of the four originating bodies. The late Secretary of the Chartered Surveyors Institution, Mr. A. Goddard, was at one time Chairman, and was succeeded by Sir Ian MacAlister in 1933. During the war Sir Ian acted as war-time Hon. Treasurer. Mr. Herbert M. Adamson was appointed Secretary of the Society in 1924, and is now retiring from insurance work.

The Society was a great success, and its benefits to junior members of the profession were considerable. The contribution for men was 1s. 8d. per week, of which the

employer paid 11d.; for women it was 1s. 2d. per week, the employer paying 8d. The Society paid the ordinary benefits as prescribed by the controlling Act, such as sickness, disablement and maternity benefits, old age pensions, pensions for widows and allowances for orphans. When the Society's assets permitted, ordinary benefits were increased in value and additional benefits for optical and dental treatment, surgical appliances, treatment and maintenance in hospitals or nursing homes were added.

The Society closed down on 13 January of this year, on instructions from the Ministry of National Insurance. All correspondence, claims for benefit, medical certificates and enquiries relating to national insurance should now be addressed to the Ministry of National Insurance, 61a High Street, Watford, Herts.

It seems desirable to record the ending of a highly satisfactory voluntary organization to which many members of the profession and the secretaries of the bodies concerned gave much time and thought, without any remuneration. A new, larger, State-controlled scheme takes its place, which perhaps is for the best, though there was something to be said for voluntary schemes of co-operative self-help of which the Society was an admirable example. A State scheme cannot have the personal touch of a small society, and, moreover, it has to be governed by a network of strict regulations. Fortunately, the Architects'

Benevolent Society will still be there to catch those unfortunate architects, assistants and their dependants who may fall through the meshes.

Sir Ian MacAlister writes: 'I hear that the Architects' and Surveyors' Approved Society is to close down in a few days in consequence of the National Health Insurance Act. As I had the honour of being its Chairman for some years I am glad of the opportunity of saying a word about it and—in particular—about its Secretary, Mr. Herbert M. Adamson. In its 36 years of life the Society really did good work. It was so small in point of numbers that it never developed the impersonal qualities of a big many-branched bureaucratic organization. It was, in fact, and every Chairman and Committee member knew it, just Mr. Adamson. Only those who worked with him know the utter devotion, the relentless industry, and the personal self-sacrifice that he gave to his task. It was not for the ludicrously small salary that he worked in cramped quarters with inadequate equipment and with a minimum of help. An earnest sense of duty and complete unselfishness marked the whole of his career as Secretary for more than 20 years. We others, his nominal chiefs, turned up once a month or so, heard his report of work done and to be done, gave our official blessing, and came away. The salaried members of the architectural and surveying professions owe Mr. Adamson a debt which they can certainly never repay.'



# Practice Notes

Edited by Charles Woodward [4]

## IN PARLIAMENT. Council Houses. (Sale.)

Asked why he had refused permission to the Hornsey Borough Council to exercise its powers under section 79 (1) (d) of the Housing Act, 1936, to sell Council houses to their tenants, the Minister of Health replied: In present circumstances it is considered that as many houses as possible should be kept available for letting by local authorities, and I have so informed the local authority. Asked further whether he was suggesting that a local authority is not a responsible body and does not know its own local circumstances best; and did he realize that the Hornsey Borough Council took into consideration the factors which he had mentioned before making this recommendation, the Minister replied: Where public money and public facilities have been found to provide houses for letting to those in the greatest need, I do not consider that those houses should now be sold to others merely because they have the money to buy them. (11 December 1947.)

**VALUE PAYMENTS.** Asked whether his attention had been drawn to the fact that some of His Majesty's Inspectors of Taxes were charging income tax on the capital value of war damage value payments; whether he was aware that this was contrary to the undertakings given when the level of value payments was finally determined; and whether he would issue instructions for this practice to cease, the Chancellor of the Exchequer replied: War damage value payments do not constitute income for income tax purposes. If my hon. Friend will send me particulars of the cases to which she refers, I will have inquiries made. (16 December 1947.)

## War Damaged Shop Fronts (Restoration).

Asked if he was aware that owing to insistence on war damaged shop fronts being replaced or restored exactly as they were originally instead of according to a new design the expense is frequently more than it would have been; and whether greater latitude will be allowed particularly when this involves financial economy, the Chancellor of the Exchequer replied: My hon. Friend has been misinformed. The owner of a war-damaged property which is not a total loss can make good the damage by works which include reasonable alterations or additions, and is entitled to claim from the War Damage Commission the reasonable cost of the work, up to the amount which it would have cost to reinstate the property as it was before the damage occurred. (22 January 1948.)

**Architects' Drawings.** Asked whether he was aware that local authorities frequently insist upon architects' drawings being submitted, and on a special type of paper,

when application is made by private persons for permission to have houses erected; that plans drawn up by such persons themselves are generally not accepted by local authorities; and whether he will instruct local authorities that architects' drawings are not essential, provided that other satisfactory drawings are submitted, the Minister of Health replied: No. Local authorities are not empowered under their building bye-laws to require that plans should be drawn by an architect, or on a special type of paper. If the hon. Member has any particular cases in mind and will give me details I will have inquiries made. (22 January 1948.)

## MINISTRY OF TOWN AND COUNTRY PLANNING.

The Ministry have published an advisory handbook on Redevelopment of Central Areas. It is obtainable at H.M. Stationery Office, price 12s. 6d., by post 12s. 10d.

**SAFETY OF CEILINGS IN PLACES OF PUBLIC ENTERTAINMENT.** In the issue of the JOURNAL for December 1945 the following note was published:

'The attention of the Practice Committee has been drawn to cases where members have been asked to give certificates to the effect that certain places of public entertainment are structurally fit and safe for use by the public. The Committee have expressed the view that an architect could not be expected to certify as to the structural safety of places of public entertainment for which he has had no responsibility, and that it would not appear adequate for him to rely only upon visual evidence. The Practice Committee were also of the opinion that if such a certificate is considered by the Licensing Justices to be necessary, it should be the duty of the appropriate Statutory Officer to issue the certificate.'

The Secretary of State for the Home Office has recently recommended to Licensing Authorities that they should require licensees to satisfy themselves, by periodical (e.g. quarterly) inspection, as to the safety of ceiling structures, and to require licensees to produce certificates by competent persons as to the safety condition of their ceilings when called upon by the Licensing Authority to do so.

The Practice Committee, having considered this recommendation, have affirmed the opinion expressed in December 1945 and have added that it must be left to the individual member to decide whether he is prepared to accept the risk in undertaking an inspection.

## THE STANDARD METHOD OF MEASUREMENT.

Under the R.I.B.A. Form of Contract the Bills of Quantities are 'deemed to have been prepared in accordance with the principles of the Standard Method of Measurement of Building Works last before issued by the Royal Institution of Chartered Surveyors and the National Federation of Building Trades Employers, unless otherwise stated.'

On 1 July next a Fourth Edition of the Standard Method of Measurement will come into operation and the three earlier editions will become obsolete.

There are many amendments in the new edition, the principal one of which is the adoption of the yard (cube, superficial or run) for the foot in the majority of cases, and the abolition of the measurement of brickwork by the rod in favour of the yard superficial reduced to one brick in thickness.

The new edition is obtainable at the Royal Institution of Chartered Surveyors, 12 Great George Street, London, S.W.1. Price 10s. post free.

**BUILDING LICENCES.** It is understood that in placing orders for building materials it is not necessary to refer to the building licence except in so far as the Licensing Authority may require this to be done where priority is claimed under the W.B.A. Scheme.

From a ruling of the Ministry of Works it appears that if a solid fuel cooker and water heater is installed in such a way as to be detachable without affecting the structure the value of the fitting may be disregarded for the purpose of Regulation 56A. This ruling also applies to other domestic fittings which are in the nature of chattels, and can be detached without affecting the structure.

**CONTROL OF BUILDING OPERATIONS.** The control of building operations (No. 10) Order, 1947, extends for a further period of six months (from 1 February to 31 July 1948) the free allowance of £10 which may be spent on a single property during that period without a civil building licence. In addition, during any one month, work costing not more than £2 may be carried out without a licence, but is not cumulative. (S.R. & O. 1947, No. 2698.)

**LAW CASES.** *Shayler v. Woolf* (C.A. Law Times. Vol. 175, p. 120). In this case a submission was made as a general proposition that the benefit of an arbitration clause could never be assigned as being a personal covenant. In the view of Lord Greene, M.R. (Somervell, L.J. concurring), such a general proposition would appear to be contrary to section 4 of the Arbitration Act, 1889, and could not be sustained.

**Arbitration clause in contract.** The case of *Heyman v. Darwins Ltd.* (1942, All E.R. 337) makes it quite clear that though a contract may be determined arbitration is still open to the parties. Lord Macmillan, in the above case, speaking of repudiation of a contract, in the sense, not of a denial of the existence of the contract, but of conduct evincing an intention no longer to be bound by it, said, 'The contract is not put out of existence, though all further performance of the obligations undertaken by each party in favour of the other may cease. It survives for the purpose of

measuring the claims arising out of the breach, and the arbitration clause survives for determining the mode of their settlement. The purposes of the contract have failed, but the arbitration clause is not one of the purposes of the contract.' In the same case Lord Porter said, 'The arbitration clause is inserted as a method of settling disputes, and it is not imposed as a term in favour of one party or the other.'

In the R.I.B.A. Form of Contract the clauses dealing with the determination of the contract by either employer or contractor use the words 'determine the employment of the contractor under this contract.' Under this wording the obligation to submit disputes or differences to arbitration would still survive, and the case above cited supports such a construction.

**Surveyor as arbitrator.** In the case of *Compania Panamena Europea Navegacion v. Frederick and Co.* (1947), L.J.R. 716; 176 L.T. 524, H.L., the position of a surveyor under a contract was considered by the court. The position was the usual one where the surveyor had, under the contract, to inspect the work on the owner's behalf and also to issue a certificate that the work had been satisfactorily carried out.

It was held that the surveyor had two duties to perform, one to superintend and control the work, and the other to act as arbitrator. Where a surveyor occupies the position of employee of one of the parties and also of arbitrator his decision can be set aside on the ground of unfairness or

collusion where he has referred to his employers for instructions and has accepted and acted on their instructions in reference to the matter submitted to him as arbitrator, regardless of his own opinion. But where the communication between the surveyor and his employers merely shows that whilst the work is being carried on he is doing his best for his employer and there is nothing to suggest that when the time comes when he has to act as arbitrator he will not do so with a perfectly open mind, there can be no basis for any allegation of unfairness or collusion. Where an illegitimate condition precedent to the granting of a certificate is insisted on by the surveyor and by the party employing him, the other party to the contract is absolved from the necessity of obtaining such a certificate before claiming the amount to which he is entitled under the contract.

The R.I.B.A. Form of Contract provides that where the employer 'interferes with or obstructs the issue of any certificate' the contractor may determine the contract.

**THE ROYAL INSTITUTION OF CHARTERED SURVEYORS.** Under the Royal Charter granted to the Institution the professional designations of members will now be F.R.I.C.S. for Fellows, and A.R.I.C.S. for Professional Associates.

**DANGEROUS FORECOURTS AND BUILDINGS.** The Metropolitan Boroughs' Standing Joint Committee have asked the London County Council to promote legislation to enable the Boroughs to deal with

the maintenance in proper condition of forecourts in private ownership, to which the public have access, and to erect fences round premises which adjoin streets and are in a dangerous condition. The Town Planning Committee of the London County Council consider it desirable that the Boroughs should have these powers and have recommended the Council accordingly.

#### MINISTRY OF HEALTH CIRCULARS

**Circular 14/48** dated 29 January 1948 addressed to Housing Authorities refers to Licensing of Work done under Statutory Notice. It may not always be possible, within the quota available for licensing work, to issue immediately a licence for work required by Statutory Notice, but every effort should be made to issue such licences at the earliest date. Inability to obtain the necessary licence is an adequate defence against proceedings for failure to obey a Statutory Notice, but it is undesirable that such a position should arise. Applicants who have been served with a Statutory Notice should be given a clear indication of the licensing position, and if it is impossible to issue a licence immediately, the application should be retained and cleared as soon as possible.

**Circular 178/47** dated 29 December 1947 addressed to local authorities in England informs them that the Minister has extended until 30 June 1948 the power delegated to Clerks of local authorities to requisition unoccupied houses.

## Book Reviews

**Classical Landscape with Figures**, by *Osbert Lancaster*. 9½ in. 224 pp. + pls. text illus. John Murray. 1947. 15s.

This book is sheer joy. It is not only beautifully produced and illustrated, but makes inimitable reading. For Mr. Lancaster is gifted with a pen that can write as vividly as it can draw. To those who believe that Greek art did not end in B.C. 146 it is a pleasure to read a book which demonstrates that there is more in Greece than broken columns and black-and-orange pottery—a book which concentrates on the glory that is Greece rather than the glory that was.

It is unfortunate that the classic heritage should have so overwhelmed the minds of men that the later achievements have for so long been disregarded by tourists. Under the stimulus firstly of Robert Byron and now of Osbert Lancaster, some indication is given of the cultural contributions which Greece made to the middle and latter-day ages of civilization.

For the fortunate who saw Greece before the War, or for the less fortunate whose military activities made the enjoyment of the classic scene somewhat difficult, this book will provide vivid recollections of much of the colour and the beauty of present-day Greece. And for the unlucky ones who have yet to enjoy the pleasures

and trials of travel in the Levant, this book provides the next best thing. It recalls (if Mr. Lancaster will forgive a rather invidious comparison) a very modest but detectable production, published just after the Napoleonic Wars, entitled *European Scenes for Tarry-at-home Travellers*, and which introduced itself with these engaging lines:

'It is not for you yet to travel abroad,  
You are too little to know what to do;  
A run in the garden all fenced and ha'  
ha'd,  
A walk with Mamma or Papa is for you.

'Yet you may know what great travellers see,  
Safe by the table all snug as you sit,  
None but a dunce will ignorant be,  
If at a book he can honestly get.'

*Classical Landscape* is the 20th-century substitute for *European Scenes*, and if designed for a more sophisticated generation it is none the less enchanting.

CECIL STEWART

**Decay of Timber and Its Prevention**, by *K. St. G. Cartwright*, M.A. (Oxon) and *W. P. K. Findlay*, D.Sc. (Lond.). D.S.I.R.: Forest Products Research Laboratory. 9½ in. vi + 294 pp. + 48 pls. H.M.S.O. 1946. 12s. 6d.

There are 294 pages in this book about wood decay, its prevention and treatment,

consisting of fourteen chapters, an appendix, and an index. Despite its fullness, however, there is relatively little detailed information about *building* technique as it is affected by the subject, which has not been dealt with in other F.P.R.L. literature, e.g. Bulletin No. 1, Dry Rot In Wood. 4th ed., etc.

This is, however, no criticism of the book, for decay in timber is, despite its economic importance in building, quite as serious a problem for many other trades, and the book is sufficiently comprehensive to be of real and lasting value to railway and mining engineers, farmers and market gardeners, builders of motor vehicles, aircraft, ships, and boats, and to timber merchants, estate managers and users of wood generally, as well as to architects and builders. It is an account of the authors' own researches over the last 20 years, and of the findings of many other workers in the same field, and as such will undoubtedly become the standard reference book on the subject in this country.

So far as architects are concerned there is obviously still much to learn about building technique in its relation to timber decay. This book, however, now gives all the necessary theoretical information as a guide to practice. There is also one section which is likely to be of particular value at the present time, namely, that dealing with the susceptibility of composite wood and manufactured wood products to rot.

The theoretical conditions under which untreated timber may be used, can now be defined, and the service which is likely to be given by timber treated in different ways, and under various conditions of infection, can be fairly accurately predicted. This knowledge together with what is now known about joints and glues, and about stress grading, may in the long run modify our present assessment of the limitations of timber.

Credit is due to the authors for the straightforward and interesting presentation of the facts and for the simplicity of the language. Furthermore, the printing is admirable, and there are many illustrations. On the other hand it is a pity that where colour is of importance in recognizing particular fungi it has not been possible to use colour photography.

It is worth mentioning here that the subject is restricted to mycology, and does not touch upon the problems of destruction by beetles and insects, except in so far as these are encouraged by decay.

Anyone who has so much as seen the book cannot fail to note that its value is much in excess of its cost: and anyone who has read it will know how to refute those who insist upon referring to 'dry rot' as 'wet' rot.

J. EASTWICK-FIELD [4]

**Travelling with Thomas Story . . . an 18th-century Quaker**, by Emily E. Moore. 9½ in. xxi + 320 pp. + pl. Letchworth: Letchworth Printers Ltd. 1947. 15s.

This condensed account of the religious life and journeys of an early Quaker based on his journal will probably have a greater appeal to the historian than the architect, but the glimpses of contemporary life and men like William Penn will have a wider appeal.

There are frequent references to, and illustrations of, early Friends' Meeting Houses of varied architectural value—it is a pity that these illustrations do less than justice to the subject in some cases.

The book is an account 'with no scholarly pretensions' based on the journal which Thomas Story willed should be published after his death in 1742 at the age of 72.

Not the least interesting matters are those relating to making of wills and Thomas Story's own will. As one destined for a legal career he was well qualified to give advice on this subject: he never practised the law, except perhaps when he held the appointment of the First Receiver and Keeper of the Great Seal in Philadelphia (1706-8).

H. LIDBETTER [F]

**Town and Country Planning Law**, by James Kekwick, Barrister-at-Law. 4to. pp. xxii + 556. Stevens and Sons. 45s. net.

This book is published at an opportune moment, concerning as it does the Town and Country Planning Act, 1947. The Act does not come into force until the 'appointed day', which is expected to be 1 April next, and there is therefore time to study its intricate provisions before it becomes effective. The author has written an introduction which is a short history of

town and country planning, and is also an explanation of the effect of the Act, which is 'nationalization' of all development rights over land on payment to the owners of £300 million. The Act is then printed and each section is explained in language which a layman can understand. Particular words and phrases in a section are selected and explained with references to any judicial interpretation which may have been given to them. Included in the volume are the Acquisition of Land Acts, 1919 and 1946, the Requisition of Land and War Works Act, 1945, so far as it is relevant, the New Towns Act, 1946, and the Statutory Orders Act, 1945, a very useful addition.

The book has been written to assist professional advisers, and there is no doubt that that aim has been achieved. It should be of great assistance to those who will have to deal with the problems that will arise and who will have to have clearly in mind their clients' rights and liabilities.

C. WOODWARD [4]

**The Quadrant and the Quill**, by C. E. Kenney, Chartered Quantity Surveyor. 12½ in. 164 pp. incl. pls. text illus. Metchim. 1947.

To the architect, quantity surveyors are, of all men, the most precise, being able exponents of 'the mathematics' and devoted to the science of building. In *The Quadrant and the Quill* Mr. Kenney has found, and has gone to great pains to acquaint us with a man, Captain Samuel Sturmy, who gave to the 17th-century students of the same 'mathematics' the impetus to follow those branches of applied science which are the basis of navigation, astronomy and artificers' work alike.

Unlike many biographers, Mr. Kenney has not let himself become wholly immersed in his subject, but has been at great pains rather to show the man against the background of his times, by evidence of the printed word and reproduction of a collection of original woodcuts and engravings which must be notable for their variety and interest.

While the arrangement of the plates and the sequence of the descriptive writing are at times somewhat lacking in cohesion, interest is not lost, rather is one loth to turn away from such excellent plates as the 'Section of a First Rate Ship', even to an engraving of a 'Nocturnal', an instrument designed 'for those who were out after nightfall and wanted to know the time'.

The methods of land survey advocated by Captain Sturmy will be of particular interest to architects and surveyors, as will also the woodcuts of 'period' styles in drawing instruments and instructions as to their construction and use.

To conclude his volume, Mr. Kenney has treated his readers to a series of excellently reproduced title pages from books in his own collection, some very rare, which were referred to by Captain Sturmy in his own book. These deal mainly with surveying, and one wonders if Mr. Kenney realizes the interest such titles as 'The Complete Surveyor: containing the whole

Art of Surveying of Land', can arouse in those who have spent many hours ranging and chaining in all climates. The tail piece to this volume, with its celestial chainman, is particularly delightful. It is hoped that Mr. Kenney will find occasion to publish further books about his collection.

S. H. LOWE [F]

**Standard Method of Measurement of Building Works**. Authorized by agreement between the Royal Institution of Chartered Surveyors and the National Federation of Building Trades Employers. 4th ed. 12½ in. vi + 76 pp. 1948. 10s.

**Revisions to the Standard Method of Measurement of Building Works**. A summary, by A. J. Willis. 9½ in. 40 pp. Crosby Lockwood. [1947.] 2s. 6d.

The fourth edition of the *Standard Method of Measurement of Building Works*, for which the Standing Joint Committee is responsible, was published on 1 January and will come into force on 1 July 1948; from this date the 1935 edition will be obsolete.

The new edition incorporates extensive revisions found necessary to meet the use of new materials and methods of construction, the increase of mechanization in the industry and general changes in conditions. The opportunity has been taken to incorporate some suggested improvements and to straighten out apparent inconsistencies and difficulties in interpretation; it also amplifies the work in certain directions, particularly by the inclusion of new sections to cover heating and ventilation and electrician's work.

The *Standard Form of Building Contract* published by the Royal Institute of British Architects in 1939 and revised in 1945 provides that Bills of Quantities 'unless otherwise expressly stated shall be deemed to have been prepared in accordance with the principles of the Standard Method of Measurement of Building Works last before issued.' Thus, as well as being a guide to the best practice, the *Standard Method of Measurement* is a basis in law of many building contracts.

Mr. Willis's summary will be found to be a useful time-saver in comparing the new with the earlier edition. The revisions are all clearly set out.

**Encyclopædia Britannica**. [Another ed.] A new survey of universal knowledge. Walter Yust, ed. [Reprint.] 24 vols. 11 in. by 8½ in. Chicago, London, etc. [1940] (1947). £58. This monumental work has been bought for the Library, which contained only the 12th ed., 1910-11 and 1922. Unfortunately, this new edition is not numbered, and the string of copyright dates, ending with 1947, gives no clue whether the last is a mere reprint and, if so, which one represents the basic edition reprinted; examination shows that the edition is probably of 1940. However, the essential topical information seems up to date: there are long articles, mostly illustrated, on Architectural Education (by Budden and Gropius), Architecture (by Corbett), Building (by Drury and Manson),



Housing. (Raymond Unwin's name, still appearing, being coupled with those of Edward Unwin and Edith E. Wood), and Town and City Planning (by W. H. Blucher), with many on more specific subjects. Altogether it seems an adequate survey, though the work will chiefly be useful for subjects outside the Library's scope. The American bias is still evident. The Britannia Book of the Year for 1946 has also been bought. H.V.M.R.

**The Architects' and Builders' Compendium 1947.** 61st year of issue. 10½ in. pp. 879. The Compendium Publishing Co., Ltd. 1947. 2 guineas.

**Highway Engineers' Reference Book for County and Municipal Engineers, Civil Engineers and Contractors.** General Editor, E. Molloy. Advisory Editor, E. Stead. 10½ in. pp. 462. George Newnes, Ltd. 1947. 30s.

**The Consulting Engineer Year Book, 1947.** 4to pp. 214. London: Princes Press Ltd. 1947. 15s.

Three useful reference books, revised and re-issued.

**Town and Country Planning.** A reader's guide by F. J. Osborn. National Book League. 8½ in. 12 pp. Cambridge University Press. 1947. 1s.

This slender booklet contains a well-selected bibliography of some 67 works dealing with town and country planning, with an introduction by Mr. Osborn giving a brief survey of the various reports and planning laws.

**Planning and Construction, 1948,** by F. J. Osborn, advisory ed. 8½ in. 471 pp. incl. advts. + pl. Todd Reference Books Ltd.; Harrap. [1947.] £1 5s.

In the fifth edition, this useful and comprehensive book of reference, last published in 1946, has been further revised and augmented to cover recent town planning legislation and developments.

**Planning. The Architect's Handbook.** E. & O.E., pseud. [S. Rowland Pierce and Patrick Cutbush.] 5th ed. Gilbert Wood, for ARCHITECT AND BUILDING NEWS, fo. 436 pages. Text plans. Index. £1 1s.

This succeeds previous editions of a reference work indispensable to architects, first published in 1936, which now has an additional section of farm buildings. Most civil, educational and domestic building types are included, though buildings normally designed by public authorities, churches, abattoirs, aerodromes, and certain minor types are excluded.

**County Palatine: A Plan for Cheshire,** by W. Dobson Chapman. Chester: Cheshire County Council. 1946. £1 1s.

An emergency edition of this book was reviewed by S. C. Ramsey [F] in the June 1947 issue. The second edition, bound in stiff covers and with extra plates, has been prepared for sale; it can be ordered from any bookseller or direct from the publishers, Country Life, Ltd.

**Model Building Bye-laws Illustrated,** by G. Eric Mitchell, M.Inst.M.E., A.R.I.B.A., M.R.San.I. 2nd ed. 9½ in. xviii + 160 pp. text illus. Batsford. 1947. 15s.

The second edition of this book now published deals with model bye-laws revised under the requirements of the Public Health Act, 1936. The subject matter is set out very clearly, and the illustrations are very helpful in conveying the meaning of a particular bye-law. Included in the volume are specification notes with illustrations of items which are not controlled by bye-laws such as stairs, plaster, paint, etc. Those concerned with building bye-laws will find the book a very useful addition to their library, and students can with advantage use it in their studies.

CHARLES WOODWARD [4]

**A Pictorial Review of Scottish Industry as Displayed in the Exhibition Enterprise Scotland 1947.** His Majesty's Stationery Office, Edinburgh.

This is an official production, by the Scottish Committee of the Council of Industrial Design. It consists of a series of articles on the industries which make up the Exhibition contributed by well-known authorities.

It is interesting to note, if names are any criterion, the strong nationalistic flavour of the exhibits illustrated. This flavour is borne out also in many instances by the type of goods exhibited and the character of their design.

It is most satisfactory to see that 'Enterprise Scotland' is not just another version of 'Britain Can Make It'. JOHN GREY [F]

**Kanholz-Normung mit Gebrauchstabellen für Gebälke und Sparren. Normalization du Bois Equarri, etc.** Edited by Eidg. Kriegs-Industrie und Arbeits-Amtes, Switzerland. Sektion für Holz und Lignum. 11½ in. pp. 105. Erlenbach-Zürich. Im Kommissionsverlag bei Verlag für Architektur AG. 1946. 17 fr.

Technical information, published in German and French, on the Swiss regulations governing squared timber. Tables are included in connection with calculations for timber framing and roofs.

**Geometry of Construction,** by T. B. Nichols and Norman Keep. 4to. pp. 216. Cleaver-Hume Press Ltd. 1947. 7s. 6d.

This is an introduction to building geometry, which has the merit of being clearly set out, with well-drawn diagrams and a full index.

**Final Report of the 18th Congress of the International Federation for Housing and Town Planning.** Hastings 1946. 9½ in. by 7½ in. 1947.

The Hastings Conference, which took place in October 1946, was attended by architects and town planners from all over the world. This report includes contributions on the new plans for Exeter, France, County of London, Rotterdam, Liege, Warsaw; also housing economics and policy decentralization housing technique and implementing the plans.

**Cornwall,** by Peggy Pollard. Drawings by Sven Berlin. (Vision of England Series.) 9 in. x 7 in. 48 pp. + pls. and folding map text illus. Elek. 1947. 9s. 6d.

This is a third of a useful series, of which *Black Country* and *Dorset* have already been noted. Though the jacket note expressly disclaims that the volumes are guide books, but rather descriptions of characteristic features and local life, the indexes would make them convenient companions. Architecture has its due share. As before, there are an informative and chatty text, excellent and representative plate photographs, impressionistic line and colour sketches and historic and present-day maps. H.V.M.R.

**Old People. Report of a Survey Committee on the problems of ageing and the care of old people.** 4to. pp. 202. Geoffrey Cumberlege O.U.P. for the Nuffield Foundation. 1947. 3s. 6d.

This admirable survey, prepared by a Committee under the chairmanship of Mr. B. Seeborn Rowntree and a sub-committee under Dr. A. S. Parkes, is addressed primarily to central and local public authorities. It deals with general problems, incomes of the old, housing and living conditions, homes and institutions, recreation, the old in employment, with conclusions and recommendations. Full and informative appendices are added by the medical sub-committee.

**Karolinska Sjukhuset,** by the Karolinska Institutet with contributions by Th. Borell, Gösta Forssell and Einar Key. 10½ in. pp. 265. Illus. 60. plans XXII. Stockholm. P. A. Norstedt & Söner. 1944. £3 3s.

A detailed description of the Karolinska Hospital Stockholm, designed by Carl Westman: fully illustrated with photographs and plans of all departments.

**The Housing of Africans in the Urban Areas of Kenya,** by G. C. W. Ogilvie. (Kenya Information Office.) 9½ in. 63 pp. + folding pl. text illus. Nairobi. 1946.

A brief survey of sociological and economic factors, housing work carried out at Nairobi and Mombasa, finance, social welfare, and alternative and temporary methods of construction.

## ERRATA

**More Beautiful Norfolk Buildings.** It is regretted that on page 127 of the January 1948 JOURNAL the name of the reviewer, Mr. J. L. Denman, J.P. [F], was inadvertently omitted.

**The Countryman at Work,** by Thomas Hennell.

Mr. H. Tayler [F] has asked that the following correction be made in connection with his review of the above book on page 126 of the January JOURNAL.

The drawings were in fact published originally in the main body of the ARCHITECTURAL REVIEW, not 'in advertisements', as was printed by mistake.

# Correspondence

## PRIZES AND STUDENTSHIPS CRITICISM

Sir,—After hearing Mr. Ralph Tubbs' excellent philosophical discourse at the January General Meeting I feel prompted to say how singularly inappropriate was the occasion. For the student competitor who had made the trek to Portland Place to hear a criticism of his design the thesis must have been disappointingly negative in the extreme. Surely the most effective basis for criticism of students' work is the analytical one, where the problems of the project are sifted and clarified, and a comparative assessment made of the solutions submitted. This, I am certain, is far more constructively helpful and satisfying to a student than the brief dismissal of his efforts with 'it lacks awareness'.

The students were also partly criticized for their lack of enthusiasm towards the competitions, but I think that is, perhaps, a little unfair. The lack of a more general response is no doubt due to the lapse that ensued during the war years, and the consequent loss of contact with the competitions' splendid tradition. This enthusiasm will almost certainly grow again as the competitions become more widely known among the post war generation of students.

Finally, I feel that many architects interested in architectural education will regret the passing from the student scene of all that the Tite Prize has hitherto implied. To study by measuring and sketching alone is not enough. The fullest appreciation of the Italian Renaissance can only be achieved through the intricate discipline of an actual design problem in this very exacting architecture.—Yours faithfully,

FRANK RISDON [4]

## ARCHITECTS' PROBLEMS

Sir,—I have before me a pamphlet issued by the National Federation of Building Trades Employers on 'The Town and Country Planning Act, 1947: How it affects the Building Industry'. It consists of a general description of the Act and questions and answers explaining specific cases, and amounts to 20 pages of printed matter.

It seems to me that information of this sort would form better subject matter for the JOURNAL at the present time, than, say, the article on the 'Use of Materials', by Mr. Fitzmaurice, in the December issue.

In the latter article we are asked, as architects, to add to the many complications already existing in designing buildings by considering site man hours and fuel costs of materials. Surely these factors ultimately show in the fixed price of the material, which prices are available to all practising architects, by reference to a current priced bill of quantities in their

own offices. I prefer to accept these prices as showing the cost of materials plus site man hours, plus haulage, plus all the other charges which must arise in all building work, and taking into consideration local conditions, as against any figure issued by a Government Department, particularly so as I appear to be able to get a yard super of 4½-in. brick partition wall built and plastered both sides for about 10s. 3d. less than the figure given in Table I, whereas, on a yard super of 3-in. clinker partition, again plastered both sides, I only save 2s. 3d.

I think our 'Scientific Advisers' would be well advised to leave their 'Back Room' and get acquainted with practical building work, or else concentrate on a study of 'Impluvation'.—Yours faithfully,

E. ALLEN [4]

## METAL WINDOW DESIGN

Sir,—I am sorry to see in your January issue that Mr. Grenfell Baines thinks the metal window manufacturers have neglected aesthetics in designing their standard range of windows. This would not be the view of the architects whose advice and assistance was taken when the range was first introduced in 1919, nor of some hundreds of others who have managed to use them with apparent satisfaction over the past twenty-eight years. But I do not wish to argue with Mr. Baines on a matter of aesthetics.

I only wish to point out that the width of 20 in. was not fixed in deference to any manufacturing technique or to the strength of any available steel sections; it was based on the average length of the human arm, which no manufacturer or designer can vary. A side-hung casement 20 in. wide, when hung on the normal pattern of cleaning hinge, opens quite as far as any ordinary person can reach, and it was with this limitation in mind that the standard width was limited to 20 in.

Mr. Baines is apparently under the impression that there is something new in the employment of a qualified designer by the makers of wooden windows. He is probably unaware of the fact that the present range of standard steel windows were produced under the supervision of a highly qualified architect, and that these designs were approved by 14 architects of distinction, who each, at our request, designed a cottage or working-class dwelling with the proviso that the new standard windows should be employed. We stipulated that if the use of these standards was found to be restrictive or objectionable in any way it should be clearly stated. No objections were raised and a number of designs were produced and models made of each cottage by Mr. H. L. North, an architect of considerable distinction. Amongst the architects who produced designs were Sir Edwin Lutyens, R.A., Sir Robert Lorimer, Mr. Detmar Blow, Mr. H. T. Buckland, Mr. Clough Williams-Ellis and Mr. P. Morley-Horder.

During the 1930's a number of additional types were introduced to meet the demands

of speculative builders, and these unpleasant hybrids—frequently glazed with pretentious leaded lights—certainly reflect no glory on the customers who demanded them, or the manufacturers who supplied them. Fortunately, they have now all been withdrawn, and the present limited number of standard windows shown in BSS.990 provides, we hope, a range of shapes and sizes which no architect need be ashamed of using in any house or cottage designed for the English climate.—Yours faithfully,

H. DONALD HOPE,

Chairman, Henry Hope and Sons Ltd.

## THE REILLY PRIZE FUND

Sir,—Sir Charles Reilly is no longer with us. He said, when he learned of the proposal to raise a Scholarship to commemorate his life's work at the Liverpool School of Architecture, that few men had been so honoured in our profession in their own time as he had been. We were glad indeed to know from him that nothing could have pleased him more in what so sadly proved to be his last days than the knowledge that this project was in process of realization and that his old students and friends throughout the architectural world were helping to found this scholarship to bear his name.

Sir Charles' death is a sad blow to us all and the Scholarship becomes unhappily a Memorial Scholarship. We ask those who have not yet sent their contributions to do so as soon as they can in order that the fund may be closed and the Scholarship initiated. We suggest that we should all make this our tribute to the memory of 'Prof', the great teacher, the lover of the arts and himself the most lovable of men.—Yours truly,

WILLIAM CRABTREE

A. G. SHEPPARD FIDLER

(Hon. Sec. & Treasurer)

DENIS WINSTON

N. J. ASLAN

66, PORTLAND PLACE,  
LONDON, W.1.

## ARCHITECTS' FEES FOR WAR DAMAGE

Sir,—We were interested to read in Practice Notes of the November JOURNAL the information about Architects' Fees for War Damage, in particular the reference to the client's responsibility for payment of fees for obtaining a building licence, and permissions under Building Acts, Town Planning and Bye-Laws. As most of the reinstatement at present is of low rateable property, the clients are rarely in a position to afford this service, and architects, therefore, have no alternative but to perform this work without remuneration.

The owners are under the impression that all expenses in connection with the reinstatement of their homes are paid by the commission, and for which they have been paying their insurance. This is another example of the academic and unrealistic approach by a government department to a human problem.—Yours faithfully,

F. L. HANNAM [4]

# Obituaries

**Sir Charles Herbert Reilly, O.B.E., M.A., LL.D. [F]**, who died on 2 February 1948, was born in 1874, and was the son of the late Charles Reilly [F], who practised in the City and was Surveyor to the Worshipful Company of Drapers. He was a superb organizer and an inspiring teacher who made the Liverpool School of Architecture famous in all parts of the world. At the turn of the century he held a part-time lectureship at King's College, London, but the classical design he submitted for the Anglican Cathedral at Liverpool gained him the Chair at Liverpool University in which his life's work was done.

Charles Herbert Reilly attended a preparatory school in Hove from the age of 9 to that of 13, and from 1887 to 1892 he went to the Merchant Taylors' School, later entering Queen's College, Cambridge, with a scholarship, where he read for the Mechanical Science Tripos, in which he took a first. On leaving Cambridge he worked for two years in his father's office, and this was to be the start of a long and distinguished architectural career, embracing the award in 1943 of the Royal Gold Medal for Architecture, the Chair for 30 years of Roscoe Professor of Architecture at the University of Liverpool, and vice-presidency of the R.I.B.A. His knighthood was awarded in 1944.

On leaving his father's office he served under John Belcher, R.A., where he met Stanley Adshad, who was later to be his colleague in Liverpool; and it was in 1904 that he was appointed to the Liverpool Chair, where in ten years up to the outbreak of the first world war he made the Liverpool School of Architecture a thriving and influential institution to which students came from the ends of the earth. Finding on his appointment a mere handful of students taking a short course, Sir Charles lengthened the course to five years, moved from makeshift buildings into the spacious buildings of the old Bluecoat School, and secured for his school first the exemption from the intermediate R.I.B.A. examination and later (in 1920) from the final examination.

In 1909 he was elected to the R.I.B.A. Council, and in 1911 was co-opted by the Faculty of Architecture of the British School at Rome. Honour succeeded honour, and later in his career he was created an Hon. Corresponding Member of the American Institute of Architects, Hon. Member of the Town Planning Institute, Member of the Comité Permanent International des Architectes, and Vice-President of the Poetry Society, the last symbolical of his warm support and enthusiasm for all the fine arts.

Apart from his professional duties, Sir Charles played a full and strenuous part in the social and intellectual life of Liverpool as well as making influential contributions to technical and general journalism, serving for some years as consulting editor to the ARCHITECTS' JOURNAL (then the BUILDERS' JOURNAL); in the inter-war years he wrote a good deal for the LIVERPOOL POST and the MANCHESTER GUARDIAN. Later he began to contribute to the WESTMINSTER GAZETTE, JOHN O' LONDON'S WEEKLY and the STRAND MAGAZINE and in 1922 he was appointed architectural editor of COUNTRY LIFE.

In 1923 Sir Charles was selected, with Thomas Hastings, to design the new Devonshire House in Piccadilly, and when in 1934 he relinquished his Chair at Liverpool University owing to heart weakness he was appointed by Mr. John Spedan Lewis as official consultant architect to the John Lewis Partnership; it was for this undertaking that he advised on the

design of the ultra modern and then revolutionary Peter Jones shop of glass and steel in Sloane Square (for which William Crabtree and Messrs. Slater and Moberly were the architects). He was also consultant architect on the rebuilding of the John Lewis store in Oxford Street.

Sir Charles's own architectural publications were few but diversified: in 1938, at the age of 64, he wrote a semi-architectural autobiography SCAFFOLDING IN THE SKY.

His wife Dorothy, daughter of the late J. Jerram Pratt, predeceased him in 1939, but he is survived by a son, and a daughter who is married to Mr. Derek L. Bridgwater, B.Arch. [F].

**Bernard John Dicksee [F]** died on 25 January 1948 at the age of 89 in London. He designed Stanwell House, Wandsworth Common; Shereton House, Hampstead; Oak House, Hampstead; Brendon Lodge, Hendon, and business premises in St. James, Southwark and Camden Town.

Mr. J. Douglas Scott [A] has sent the following appreciation:

I first met Bernard Dicksee about 40 years ago and, in spite of a rather brusque and austere manner, I found him ready to help with sound advice as I know he often did for younger members of the profession. Whilst very reticent he nevertheless welcomed an argument over some knotty point, and it was difficult to get him to alter an opinion once given. He always strenuously upheld the dignity and etiquette of the profession.

Bernard Dicksee was very reserved and seldom talked about his private work, but he was often called upon to give evidence in the Courts in building disputes, where his expert knowledge of the Building Acts was very valuable. (He was the author of 'The London Building Act', the first edition being published in 1894 and the sixth edition entitled 'London Building Act, 1930' being published in 1931.) In later years as a colleague assessing claims for the War Damage Commission his decisions were very sound and just. And so passes one of the old school who was at heart a kindly old gentleman.

**John Cadwallader Dewhurst [F]** died on 5 December 1947. Professor A. E. Richardson, R.A. [F] has submitted the following appreciation of Mr. Dewhurst:—

The death of John Dewhurst will be regretted by all who knew him both in England and in Dublin. It is now some years since his retirement from active practice yet until quite recently he was engaged in research, for he had a passion for verifying the lesser known facts of art history.

Articled to Henry Summers in the 'eighties he gained his first impressions of architecture from schemes then toward in the Wirral district, and business premises in Liverpool. Further experience in construction came when Exhibition buildings were being designed in Summers' office. In those days an architect's pupil usually entered another office as an improver directly the term of his apprenticeship ended. Dewhurst followed this procedure, becoming first an assistant with Messrs. Smith, Woodhouse and Wilmoughby and afterwards joining the staff in Messrs. Corbet's office. When Dewhurst secured a position in John Lanyon's office in Belfast, he entered an entirely new environment. Lanyon's reputation was then famous throughout Ireland, he belonged, so to speak, to the classic lineage; it was therefore a privilege for a young man to be in such an office.

From now on John Dewhurst's professional career became identified with the country of his adoption. He was appointed architect in the Department of the Chief Engineer of the Great

Northern Railway and eventually, when Eire became self-governing, he was made architect to the Great Southern and Western Railway until his retirement in 1930. John Dewhurst had a leaning for things classical, but this did not abate his interest in the use of concrete as can be seen in the design of signal cabins and other features of railway practice. For many years he was responsible for the variations of the architectural works of the railway system between Dublin and the South West. His activities, however, were not entirely official for his zeal in the cause of education, particularly the training of pupils, led to the founding of the School of Architecture in the National University. John Dewhurst was a loyal supporter and admirer of the late Professor R. M. Butler, and never failed to bring items of constructional interest to the notice of the School.

During the war years, while living in retirement at Chester, he investigated the work of John Harrison, bringing to light many of the latter's original plans and rendered drawings.

During many visits to Ireland, extending over 50 years or more, it was always my privilege to spend some time in John Dewhurst's company at Donnybrook. There in a Trollopian setting we discussed the 19th century, waxed enthusiastic over the work of Gandon, Mulvany and the rest of them, spoke of England as a distant country and indulged in dreams. The passing of the years brings many changes.

**Percy A. Lamb [F]** died on 24 November 1947 at the age of 76. Specializing in ecclesiastical architecture—he was a staunch Roman Catholic—Mr. Lamb is interred in the cemetery attached to the Carmelite Mission at Gerrards Cross beneath the shadow of the beginnings of a beautiful Catholic church he had designed.

The following has been received from a contributor who wishes to be anonymous:—

The contemporaries of Percy Lamb, will, I know, be sorry to hear of his death on 24 November at the age of 76.

Educated at Beaumont College he studied architecture under Edward Goldie, and when work commenced on the Westminster Cathedral under the famous and renowned John Bentley, he saw as clerk of the works the building rise from the first to the last brick.

During the last of the late Cardinal Vaughan's days he was frequently with him reporting progress on the cathedral and receiving instructions.

Immediately after the 1914-1918 war he did much useful work for the War Office settling large compensation claims.

Both before and after the war he built many additions to schools, convents and churches, and planned new buildings in different parts of England, and some of his work can be seen as far away as Iraq and Palestine.

Shortly after the last world war when his office in John Street, Adelphi, had been completely destroyed by enemy action he retired, and lived at his house at Kingston, Surrey, part of which he had built. But he was soon back at his drawing board as his work being so widely known brought many requests from right and left to restore buildings, increase their accommodation, and in many cases make an estimate of damage to present to the War Damage Commission.

His proverbial kindness, gentleness and sound common sense endeared him to all, as shown by the many letters of appreciation received from all those with whom he came in contact.

Without doubt all this extra work which he undertook shortened his days of retirement, for in spite of his doctor's advice and warning he still continued to do all in his power to help his neighbour.



**Alfred Golding** [4] died on 13 November 1947 at West Hartlepool at the early age of 44. His municipal experience extended over a period of 19 years in the service of the Sunderland and West Hartlepool Corporations, and he was Chief Architectural Assistant in the Borough Engineer's Office, West Hartlepool from 1930 to August 1940. As a Territorial Army Reservist, he served with the Royal Engineers in the rank of major in the United Kingdom and India until released in November 1945.

Mr. Golding was educated at Westoe Secondary School, South Shields, and at the Technical College, Sunderland, serving his articles with the late George T. Brown [F] of Sunderland.

Whilst Chief Architectural Assistant to the West Hartlepool Corporation he carried out much hospital and school architectural work, being responsible for the new blocks at the Infectious Diseases Hospital, West Hartlepool, and extensions to the Cameron Hospital and Howbeck Institution in that town, as well as being responsible for the design and erection of new offices for the Public Assistance Committee, the bus station, conveniences and clock tower, Seaton Carew and the Club House at the Civic Airport, West Hartlepool.

**Edward H. Walker** [F], of East Crescent, Whitby, who practised as an architect and surveyor in Doncaster from 1908 until his retirement in 1941, died on 13 December, aged 66. Mr. Walker, who lived in Bessacarr, Doncaster, for 33 years, moved to Whitby in September last.

He was educated at Doncaster Grammar School and Bedford School, and after serving articles in London was elected an Associate in 1906 and a Fellow in 1925.

One of the Old Volunteers, he became an officer in the 5th Batt. K.O.Y.L.I. when the Territorial Army was formed, and served as a captain in France during the first world war.

Mr. Walker's earliest work in the Doncaster area included the designs for the Warde-Aldam Cottage Hospital, South Elmsall, and the Picture House, Doncaster. Specializing in churches and hospitals he did much work for Doncaster Parish Church, and one of his latest designs was the spire of Christ Church in that town. He also designed the out-patients' department at Doncaster Infirmary, but considered his best work the adaptation of Nether Hall council chamber for the Doncaster Rural Council.

Mr. Walker leaves a widow and two sons. His youngest son, Flight-Sgt. E. P. Walker, was killed in action in February 1942, and the second son, Mr. R. G. Walker, is a Doncaster journalist.

**John Alexander Carfrae** [Retd. L] died in Edinburgh on 11 July, 1947, at the age of 79. He has been a retired Licentiate since 1938. Mr. Ebenezer James MacRae [F] has forwarded the following appreciation:—

Educated at James Gillespie's School, Edinburgh, he was apprenticed to Mr. Robert Wilson, Architect to the School Board in Edinburgh. After experience in the office of Messrs. Sydney Mitchell & Wilson, he went to London, where he worked with Mr. Arthur Cawston [4], and H.M. Office of Works, returning as Chief Assistant to Mr. Wilson's office about 1892, where he remained until Mr. Wilson's death in 1901, succeeding him in his appointment to the Edinburgh School Board, which he held until 1920, when the Education Authority was transferred to the Town Council. During that period, at a time of great expansion, he designed a large number of important schools—among them Tynecastle, Boroughmuir Higher Grade for 1,230 pupils, King's Park, James Gillespie's Girls', and later Balgreen and Stenhouse Schools.

While his planning was the result of a wide knowledge of educational requirements, he was never satisfied with the routine architectural

treatment of earlier days, and his schools have an individuality and freshness of design, some, like James Gillespie's Girls' and King's Park, on splendid sites, being outstanding in treatment.

Among his works might be mentioned his restoration of the early 17th century Canonball House as an adjunct to Castlehill School, the School at Dirleton, Higher Grade School at Hawick, Extension to Dr. Guthrie's School at Liberton and to Templedean Girls' Home at Haddington. In 1920 he won a competition for the War Memorial at George Watson's College for Boys.

In spite of never robust health, his output of work was amazing. Mr. Carfrae was a fine draughtsman and a good water-colourist. He was quiet and retiring and of a singularly gracious nature. He is survived by his widow and two sons.

**Sidney Reynier Day** [L] who died at Harrow Weald on 7 December 1947, was a Yorkshireman and was articled in Leeds. He commenced practice in Ealing in 1929, and later at Harrow. His work was of a domestic and commercial nature and he was for many years the Head of the Building Department at Acton Technical College where he carried out his duties with great zeal and won the respect of the staff and students.

In recent years he devoted himself more particularly to quantities, which included those for the new Grammar School at Bradford.

Those with whom he collaborated over a long term of years on various matters including schemes, surveys and quantities found him a most capable helper, his quiet and equable character, diligence and remarkable knowledge of things architectural were highly esteemed, and his loss is keenly felt.

In the records of the Beverley Rural District Council is to be found a resolution testifying to his capability and integrity.

**Christmas Holiday Lectures:** The Secretary reported that the recent series of Christmas Holiday Lectures for boys and girls given by Mr. Richard Sheppard [F] had been an outstanding success. Requests for tickets had far exceeded available accommodation. A cordial vote of thanks was passed in favour of Mr. Richard Sheppard.

**The Honorary Corresponding Membership:** The Council nominated Mr. Douglas William Orr, President of the American Institute of Architects, for election as an Honorary Corresponding Member.

**1951 Exhibition:** A letter was received from Mr. Herbert Morrison, Lord President of the Council, thanking the Council for the assurances they had given to him of the Institute's readiness to co-operate in the work for the 1951 Exhibition and saying that in regard to the planning of the Architecture and Town Planning Sections of the Exhibition the Institute would be brought into consultation from the outset.

**South Quay: Great Yarmouth:** The Secretary reported that the Corporation of the County Borough of Great Yarmouth had applied to the Minister of Town and Country Planning for an order under the Town and Country Planning Act, 1944, declaring an area including South Quay, Great Yarmouth, subject to compulsory purchase for the purpose of redevelopment. The Norfolk and Norwich Association of Architects had lodged an objection to the application.

It was agreed to write to the Minister of Town and Country Planning supporting the

## Notes from the Minutes of the Council

### MEETING HELD 13 JANUARY 1948

**New Year Greetings:** The President extended his cordial good wishes for 1948 to members of Council and members of the Institute's staff.

**New Year Honours:** The Secretary reported the following awards in the New Year Honours List:

**G.B.E.:** Sir Edward Mellanby, K.C.B., F.R.S., Secretary, Medical Research Council.

**K.C.B.:** Sir Thomas Sheepshanks, K.B.E., Permanent Secretary, The Ministry of Town and Country Planning.

**Knights Bachelor:** Mr. George L. Pepler, C.B. (Hon. Associate); Mr. John W. Stephenson, General Secretary, The Plumbers', Glaziers' and Domestic Engineers' Union.

**C.B.E. (Civil):** Mr. E. Graham Clark, M.C., Secretary, The Institution of Civil Engineers; Mr. W. H. Forsdike, Past President, The National Federation of Building Trades Employers; Mr. P. H. Jowett, R.W.S., A.R.C.A., Past Principal, The Royal College of Art, London; Mr. F. Lambert, F.S.A., Director, The Walker Art Gallery, Liverpool. Mr. Charles Wheeler, R.A., President, The Royal Society of British Sculptors.

**O.B.E. (Civil):** Mr. J. A. Cope-Christie [F], Mr. J. Greaves [F], Major C. W. Reeves [F], Mr. Basil Spence [F], Mr. J. M. Theobald, Past President of the Royal Institution of Chartered Surveyors.

**M.B.E. (Civil):** Mr. B. F. Brueton [4], Mr. J. Hilary Waddington (Student).

It was agreed that the cordial congratulations of the Council should be sent to the recipients of these awards.

### Appointments:

**Codes of Practice Committees:** 'F' Drafting Committee: Mr. C. J. Epril [F] in place of Mr. Howard Leicester [F].

**R.I.B.A. Representatives on Architectural Education Committee of the University of London:** Mr. A. B. Knapp-Fisher [F] and Mr. Martin S. Briggs [F] re-appointed.

**R.I.B.A. Representative on the Court of Liverpool University:** Mr. Harold A. Dod [F] in place of Mr. Herbert J. Rowse [F].

**R.I.B.A. Architecture Bronze Medal: The Indian Institute of Architects: R.I.B.A. Representative on Jury of Calcutta Chapter:** Lieut.-Colonel G. Swayne-Thomas [F] in place of Mr. John Innes [4].

**Election of Royal Gold Medallist 1948:** In accordance with the terms of Bye-law 62, the Council resolved unanimously to submit for the approval of His Majesty the King the name of M. Auguste Perret (Hon. Corresponding Member) (France) as recipient of the Royal Gold Medal 1948.

**Mr. Edward Maufe, R.A. [F]:** The Secretary reported the election of Mr. Edward Maufe [F] as Royal Academician. It was agreed to send the cordial congratulations of the Council.

objection of the Norfolk and Norwich Association.

**Whole-time Officials and Private Practice:** On the joint recommendation of the Practice and Salaried and Official Architects' Committees it was agreed to rescind the 'principles' governing the question of whole-time officials engaging in private work which were approved by the Council in March 1932, and published in the JOURNALS of April 1932 and November 1935.

It was agreed that the following 'principles' be substituted:

1. Members who are whole-time salaried or official architects if permitted by their employers to engage in private work must at all times scrupulously observe the Code of Professional Practice, with particular reference to Clauses 4 and 5 thereto.

2. A member employed by a central or local government department should not seek permission to undertake private work for which he is, by reason of his office in a position to grant or influence the granting of any form of statutory approval, unless he is completely satisfied that his position and action in the matter will be free from any suspicion or suggestion of abuse.

It was also agreed to draw the attention of the authorities concerned to the obligation on an official architect member of the Institute to observe Clause 5 of the Code of Professional

Practice in regard to carrying out alterations to a requisitioned building for which another architect had previously been responsible.

**Membership:** The following members were elected: as Fellows, 17; as Associates, 70; as Licentiates, 14. *Students:* 125 Probationers were elected as Students.

**Applications for Election:** Applications for election were approved as follows: *Election 9 March 1948:* as Honorary Fellows, 2; as Honorary Associates, 4; as Fellows, 9; as Associates, 38; as Licentiates, 34. *Election 22 June 1948—Overseas Candidates:* as Fellows, 2; as Associates, 6.

**Applications for Reinstatement:** The following applications were approved: as Associates: John William Kidd, Philip Evans Palmer, John Steel.

**Resignations:** The following resignations were accepted with regret: Hubert William Horsley [F], Francis Alfred Barley [A], Edward Walter Brierley [A], Jack Seaton Brockhurst [A], George William Dolbey [A], Mrs. Joan Johnson [A], Arthur Todd Phillips [A], Ernest Charles Aldridge [L], David Lindsay Allen [L], Percival Henry Ashby-Bailey [L], George Gray [L], Archibald Charles Harper Locke [L], Ernest Cecil Lomer [L], Charles Mann [L], John Hooper May [L], William Salmund [L], Walter Perry Walker [L], Harry Welburn [L],

Eustace Scott Whitney [L], Campbell Featherston Cargill [Reid. L], Herbert John Franklin [Reid. L].

**Applications for Transfer to Retired Members' Class under Bye-law 15:** The following applications were approved: as Retired Fellows: Richard James Archibald, Hubert Ernest Gifford, James Hembrow, Arthur George Lynham, Alexander William Douglas Reid, Arnold Silcock, Clement Stretton, Christopher William Frederick Wheeler, Stephen Wilkinson; as Retired Associates: Bertram Drummond, Francis William Marshall; as Retired Licentiates: Walter Clement Barker, Edward Bates, John Simpson Bowie, Thomas Leslie Bright, Thomas John Miller Reid, John Sidey, William Henry Taylor.

**Obituary:** The Secretary reported with regret the death of the following members: Percy Ardan Lamb [F], Harold Edwards Meredith [F], Arthur Edward Thomas Mort [F], William Edward Trent [F], John Cadwallader Dewhurst [Reid. F], Edward Holdsworth Walker [Reid. F], Alfred Golding [A], Nathan Thomas Salmon [A], Robert Ian Stewart [A], Cecil Walter Wood [A] (Mr. Wood was a former President of the New Zealand Institute of Architects and had represented that body on the Council), Sidney Reynier Day [L], Henry George Malcolm Laing [L], Thomas Percival Tinsley [L], Thomas Alfred Williams [L].

## Notes and Notices

### NOTICES

**The Eighth General Meeting, Tuesday 9 March 1948**

The Eighth General Meeting of the Session 1947-48 will be held on Tuesday 9 March 1948 at 6 p.m. for the following purposes:

To read the minutes of the Seventh General Meeting held on 24 February 1948; formally to admit new members attending for the first time since their election.

Mr. Howard Robertson, M.C., S.A.D.G. [F], to read a paper on *The American Scene*. (Light refreshments will be provided before the meeting.)

#### Session 1947-48. Minutes IV

At a Special General Meeting of the Session 1947-48 held on Tuesday 13 January 1948 at 6 p.m.

Sir Lancelot Keay, K.B.E., President, in the Chair.

The meeting was attended by about 90 members.

The President announced that the Special General Meeting had been called for the purpose of considering the following proposals of the Council:

(1) To amend Bye-law 28 to provide that the new Salaried and Official Architects' Committee be entitled to nominate two representatives to serve on the Council in place of the Chairman of the Official Architects' Committee and the Chairman or other representative of the Salaried Members' Committee—these two Committees having now been merged under the title of the Salaried and Official Architects' Committee, and

(2) To amend Bye-law 58 to provide that the Annual General Meeting be held on a date in May or June, instead of on a Monday in May as at present.

The following Resolutions were then moved by Mr. A. L. Roberts, Hon. Secretary,

seconded by Mr. John L. Denman, Hon. Treasurer, and carried nem. con.:

(1) That the following sub-clauses (l) and (m) of Bye-law 28 (l) be deleted:

(l) 'The Chairman of the Official Architects' Committee, being a Fellow, Associate or Licentiate of the Royal Institute.'

(m) 'The Chairman or other representative member of the Salaried Members' Committee being a Fellow, Associate or Licentiate of the Royal Institute.'

and that the following sub-clause (l) be added:

(l) 'Two representatives of the Salaried and Official Architects' Committee being Fellows, Associates or Licentiates of the Royal Institute.'

(2) That the words 'a Monday in May' in Bye-law 58 be deleted and substituted by the words 'a date in May or June.'

(3) That the necessary steps be taken to obtain the sanction of the Privy Council to such amendments to the Bye-laws as are required to give effect to the foregoing resolutions.

The Hon. Secretary announced that a Special General Meeting to confirm these Resolutions would be held on Tuesday 27 January 1948 at 6 p.m.

The proceedings closed at 6.5 p.m.

#### Session 1947-48. Minutes V

At the Fourth General Meeting of the Session 1947-48 held on Tuesday 13 January 1948 at the conclusion of the Special General Meeting held on that day.

Sir Lancelot Keay, K.B.E., President, in the Chair.

The meeting was attended by about 280 members and guests.

The Minutes of the Third General Meeting held on 9 December 1947 were taken as read, confirmed and signed as correct.

The following members attending for the first time since their election were formally admitted by the President:

#### AS FELLOWS

R. E. M. Coombes, C. J. Fawcett Martindale.

#### AS ASSOCIATES

Robert Anderson, A. T. Cutler, John Farrar, R. W. Germaney, R. O. Hall, Miss S. L. Linsens, Eric Pollitt.

The Secretary having read the Deed of Award of Prizes and Studentships made by the Council under the Common Seal, the sealed envelopes bearing the mottoes of the successful competitors were opened and the names disclosed.

Mr. Ralph Tubbs [A] read his review of the works submitted for the Prizes and Studentships 1948 and illustrated it by lantern slides.

On the motion of Mr. Sydney Tatchell, C.B.E. [F], Chairman of the Architects' Registration Council of the United Kingdom, seconded by Mr. R. Gordon Brown [A], Principal of the Architectural Association School of Architecture, a vote of thanks was passed to Mr. Tubbs by acclamation and was briefly responded to.

The proceedings closed at 7.45 p.m.

#### Session 1947-48. Minutes VI

At a Special General Meeting held on Tuesday 27 January 1948 at 6 p.m.

Sir Lancelot Keay, K.B.E., President, in the Chair.

The meeting was attended by about 200 members.

The Hon. Secretary announced that the Minutes of the Special General Meeting held on Tuesday 13 January 1948 were being published in the JOURNAL, and they were taken as read, confirmed and signed as correct.

The President announced that the Special General Meeting had been called for the purpose of confirming the Resolutions passed at the Special General Meeting held on Tuesday 13 January 1948.

The President thereupon moved, and Mr. A. L. Roberts, Hon. Secretary, seconded, that the following Resolutions be confirmed:

(1) That the following sub-clauses (l) and (m) of Bye-law 28 (l) be deleted:

(l) The Chairman of the Official Architects' Committee, being a Fellow, Associate or Licentiate of the Royal Institute.

(m) The Chairman or other representative member of the Salaried Members' Com-

mittee being a Fellow, Associate or Licentiate of the Royal Institute.

and that the following sub-clause (1) be added:  
(1) Two representatives of the Salaried and Official Architects' Committee being Fellows, Associates or Licentiates of the Royal Institute.  
(2) That the words 'a Monday in May' in Bye-law 58 be deleted and substituted by the words 'a date in May or June'.

(3) That the necessary steps be taken to obtain the sanction of the Privy Council to such amendments to the Bye-laws as are required to give effect to the foregoing resolutions.

The Resolutions were put to the Meeting and passed unanimously.

The proceedings closed at 6.7 p.m.

#### Session 1947-48. Minutes VII

At the Fifth General Meeting of the Session 1947-48 held on Tuesday 27 January 1948 at the conclusion of the Special General Meeting held on that day.

Sir Lancelot Keay, K.B.E., President, in the Chair.

The meeting was attended by about 350 members and guests.

The Minutes of the Fourth General Meeting held on Tuesday 13 January 1948 were taken as read, confirmed and signed as correct.

The following members attending for the first time since their election were formally admitted by the President:

#### AS FELLOWS

W. H. Clark, T. H. Eley, William Mollison, L. J. Multon, J. Schreiner, C. Sunderland, Denis Winston.

#### AS ASSOCIATES

Miss F. E. Allen, T. A. Baldwin, Major P. J. Barbary, Captain V. G. Bartholomew, I. M. Bellamy, Miss E. K. Brooks, J. H. C. Brown, Thomas Brown, Derek Buckler, A. H. Burnett, E. J. Cavanagh, Miss M. M. Champion, W. R. Castle Cleary, R. L. Connelly, John Crowther, Miss D. O. Cundall, W. R. Davies, H. J. Ellery, B. P. Field, Miss Dorothy M. Fletcher, Roger Freeman, A. D. Geach, S. B. P. Hawkins, N. E. A. Holder, J. Q. Hughes, Captain C. S.

Jarrett, A. J. R. Jennings, C. A. Lomas, R. C. Lusty, John Morison, Alexander Naglovsky, W. J. Parker, E. H. Paul, R. S. Poole, D. T. B. Pope, P. J. L. Powell, A. J. Power, Miss Barbara Priestley, J. E. Raynham, E. W. Riley, G. E. Rothen, R. G. Smith, H. A. Stroud, J. R. Weeks, G. A. Weinmann, K. C. White, Bernard Wilson.

#### AS LICENTIATES

E. R. Baines, E. H. Banks, Ivor Hodges, E. R. Rowe, G. A. G. Rowland.

Sir Frank Stockdale, G.C.M.G., C.B.E. (Adviser on Development Planning, Colonial Office), having read a paper on *Recent Planning Developments in the Colonies*, Mr. R. J. Gardner-Medwin [A] having given a detailed description of West Indian Schemes, and Mr. S. M. de Syllas [A] having spoken on the Barbados Scheme in particular, a discussion ensued, and on the motion of Sir Thomas Lloyd, K.C.M.G., seconded by Mr. E. Maxwell Fry [F], a vote of thanks was passed to Sir Frank Stockdale, Mr. Gardner-Medwin and Mr. de Syllas by acclamation and was briefly responded to.

The proceedings closed at 8.35 p.m.

#### British Architects' Conference, Liverpool, 27-30 May 1948

The next Annual Conference of the R.I.B.A. and its Allied and Associated Societies will be held in Liverpool from 27 to 30 May 1948 inclusive, in conjunction with the Centenary Celebrations of the Liverpool Architectural Society. Particulars of the programme will be issued in due course, and the application form for membership of the Conference will be sent to members with the March issue of the JOURNAL.

It is expected that there will be a large attendance of members from all parts of the country, and they are advised to arrange their hotel accommodation at the earliest possible moment, to avoid the risk of disappointment.

The Executive Committee of the Conference have furnished the list of hotels in and around Liverpool published below.

#### British Architects' Conference, Liverpool, Hotel Accommodation.

	ROOMS			TARIFF			Mins. from Conference Hqs.
	With double beds	With twin beds	With single beds	Bed and breakfast double	Bed and breakfast single	Full daily per person	
<b>LIVERPOOL</b>							
Adelphi Hotel .. .. .	—	50	25	40/-	21/-	—	3
Exchange Hotel .. .. .	—	10	—	34/6	—	—	7
Hanover Hotel, Hanover Street ..	—	—	6	—	13/9	22/-	5
Shaftesbury Hotel, Mount Pleasant ..	3	—	6	25/-	12/6	—	5
<b>BIRKENHEAD</b>							
Central Hotel, Clifton Crescent ..	2	—	4	20/-	11/-	—	15
<b>NEW BRIGHTON</b>							
Grand Hotel, Marine Promenade ..	8	4	1	31/-	15/6	25/-	30
Victoria Hotel .. .. .	—	6	6	35/-	17/6	25/-	30
Sandrock Hotel, Rowson Street ..	15	—	7	21/-	10/6	—	30
Rock Point Hotel, Marine Promenade	14	—	3	25/-	12/6	18/6	30
<b>BLUNDELLSANDS</b>							
Blundellsands Hotel, Liverpool, 23 ..	—	2	2	35/-	17/6	25/-	30
<b>HOYLAKES</b>							
King's Gap Court Hotel, Wirral ..	—	3	1	—	—	23/6	35
*Green Lodge Hotel .. .. .	—	—	—	—	—	21/-	40
Royal (Gold) Hotel, Stanley Road ..	4	8	3	30/-	15/-	25/-	35
<b>SOUTHPORT</b>							
Hoghton House, 54 Hoghton Street ..	—	2	1	—	—	17/6	60
Orleans Private Hotel, 8 Lathom Road	1	3	—	—	—	22/-	60
Eyredene Private Hotel, 8 Knowsley Road	3	5	4	—	—	21/-	60
*Silverdale Private Hotel, 12 Bank Square	2	—	1	21/-	10/6	15/-	60
Scarlsbrick Hotel, Lord Street ..	4	4	4	—	—	25/-	60
<b>CHESTER</b>							
Grosvenor Hotel .. .. .	10	—	—	43/-	—	33/-	80

\*The Green Lodge Hotel, Hoylake, has two rooms with one double and one single bed, and the Silverdale Private Hotel, Southport, six.

#### Undertaking of Private Work by Whole-time Salaried and Official Architects

Certain principles governing the question of whole-time officials engaging in private work were approved by the Council in March 1932 and were published in the JOURNAL of April 1932 and again in November 1935.

By resolution of the Council at their meeting on 13 January 1948 those principles were abrogated, and the following principles were substituted in their place:

1. Members who are whole-time salaried or official architects if permitted by their employers to engage in private work must at all times scrupulously observe the Code of Professional Practice, with particular reference to Clauses 4 and 5 thereto.
2. A member employed by a central or local government department should not seek permission to undertake private work for which he is, by reason of his office, in a position to grant or influence the granting of any form of statutory approval, unless he is completely satisfied that his position and action in the matter will be free from any suspicion or suggestion of abuse.

These principles have been approved on the joint recommendation of the Practice and Salaried and Official Architects' Committees, who have thoroughly examined the whole question.

The Council consider that the decision as to whether a member holding a whole-time salaried or official position should engage in private work is a matter for the employer, and in this respect have noted the general directives on the matter contained in the Scheme of Conditions of Service of the National Joint Council for Local Authorities, the Local Government Act, 1933, Section 123, and the Ministry of Works Establishment Circular No. 806.

Attention of members is particularly drawn to the situation created by the acceptance of private work, statutory approval for which will have to be obtained from the office or department with which that member is officially connected. It is suggested that in regard to any such private work members should bear in mind that not only must there be no abuse of their position, but there must be no possibility of suspicion in the public mind of any such abuse.

The Council also draw attention to the obligations on an official architect of observing Clause 5 of the Code of Professional Practice in regard to alterations made to any requisitioned building for which he is responsible in his official capacity and for which another architect had been responsible before that building was requisitioned.

#### Classes of Retired Members

Under the provisions of Bye-law 15 applications may be received from those members who are eligible for transfer to the class of 'Retired Fellows', 'Retired Associates' or 'Retired Licentiates'.

The Bye-law is as follows:—

'Any Fellow, Associate or Licentiate who has reached the age of 55 and has retired from practice may, subject to the approval of the Council, be transferred without election to the class of "Retired Fellows", "Retired Associates", or "Retired Licentiates", as the case may be, but in such case his interest in, or claim against the property of, the Royal Institute shall cease.

The amount of the annual subscription payable by such "Retired Fellows", "Retired Associates" or "Retired Licentiates" shall be one guinea, or such amount as may be determined by resolution of the Council, excepting in the case of those who have paid subscriptions as full members for 30 years, and who shall be exempt



from further payment. A "Retired Fellow", "Retired Associate" or "Retired Licentiate" shall have the right to use the affix of his class with the word "Retired" after it, shall be entitled to receive the JOURNAL and Kalendar, shall be entitled to the use of the Library, and shall have the right to attend General Meetings, but shall not be entitled to vote. A "Retired Fellow", "Retired Associate" or "Retired Licentiate" shall not engage in any avocation which in the opinion of the Council is inconsistent with that of architecture. Nothing contained in this Bye-law shall affect the rights of persons who at the date of the passing of this Bye-law are members of the classes of "Retired Fellows" and "Retired Members of the Society of Architects".

#### Composition of Subscriptions for Life Membership

Fellows, Associates and Licentiates of the R.I.B.A. may become life members by compounding their respective annual subscriptions. Full details may be obtained on application to the Secretary, R.I.B.A.

#### Correspondence with the Institute

In order to facilitate speedier attention to correspondence, and to relieve the staff of a great deal of research, it is particularly requested that members and students will kindly state in all correspondence with the Institute the class of membership (F, A, L or Student) to which they belong.

#### Members and Professional Affixes

The Council's attention has been called more than once to the practice, among some members, of adding a string of letters of doubtful value to the affix indicating membership of the Royal Institute on their letter paper.

This is a matter in which the Council obviously cannot dictate to members, and must trust to their good sense. It should be obvious, however, that the affix of a chartered body of high standing is weakened in effect by the addition to it of a string of other mysterious designations some of which probably indicate no more than the payment of an annual subscription.

#### Building Surveying Examination

The R.I.B.A. Examination qualifying for candidature as Building Surveyor under Local Authorities will be held at the R.I.B.A. on 21, 22 and 23 April 1948.

Applications for admission to the examination must be made not later than 5 March 1948 on the prescribed form to be obtained from the Secretary, R.I.B.A.

#### Exhibition of Soviet Architecture, 3-20 March 1948

An Exhibition of the Architecture of the U.S.S.R. will be open at the R.I.B.A. from Wednesday 3 March to Saturday 20 March inclusive between the hours of 11 a.m. and 7 p.m. (Saturdays 11 a.m. and 5 p.m.). (See note on page 149.)

## BOARD OF ARCHITECTURAL EDUCATION

**Title Prize Competition—Revision of Conditions**  
The R.I.B.A. Council have decided to amend the arrangements for the competition for the Title Prize. The revised arrangements will come into operation this year (1948), and are as follows:

Instead of a Preliminary en-loge Competition and a Final en-loge Competition being

conducted as in the past, only one en-loge competition will be held. Competitors will be furnished with an outline programme for the competition, one month before the en-loge Competition is held, and at the opening of the en-loge competition which will be held in July annually, they will be handed the complete programme.

The en-loge competition will be of 12 hours' duration, at the conclusion of which competitors will be required to hand in their schemes prepared en-loge, retaining a tracing of their drawings for their own use.

Competitors will be notified within two weeks of the en-loge competition whether or not they will be permitted to proceed with their final drawings. Competitors who are permitted to proceed with their final drawings will be allowed a period of six weeks from the date of the receipt of this notification to develop their final drawings.

The revised regulations governing the Title Prize Competition will be printed in the R.I.B.A. Prizes Pamphlet for 1948-49.

#### The R.I.B.A. Intermediate Examination, November 1947

The R.I.B.A. Intermediate Examination was held in London, Manchester, Leeds, Newcastle, Edinburgh and Belfast from 7 to 13 November 1947.

Of the 362 candidates examined, 174 passed and 188 were relegated. The successful candidates are as follows:

Allen, R. J. (Miss)  
Amor, J. R.  
Anderson, M. C. (Miss)  
\*Arnold, B. F.  
Arnott, J. C.  
Atkins, J. E. (Miss)  
Avenell, Anthony  
Aylott, I. D. (Miss)  
Baker, E. E. (Miss)  
Baker, H. W.  
Barrow, D. R.  
Bentley, A. G.  
Berryman, J. S.  
Bewes, L. A. L.  
\*Bishop, K. G.  
Bond, D. O.  
\*Boswell, E. S.  
Bray, G. B.  
\*Brock, Frank  
Bruce, J. G.  
Burah, Layla (Miss)  
Butler, A. W.  
Butler, E. W.  
\*Cadman, C. L. J.  
Caplan, David  
\*Cavanagh, A. L.  
Cavell, M. H.  
\*Chew, T. W.  
Clark, K. H. J.  
\*Clark, R. B.  
Clark, R. V.  
Clarkson, Harry  
Cook, B. R. (Miss)  
Cook, J. E. (Miss)  
\*Coombe, A. A.  
Cox, Frank  
\*Crockett, E. E. C.  
Crosby, F. E.  
Crowther, G. J. W.  
\*Dallow, J. G.  
Davis, N. C.  
\*De Mott, L. T.  
Denley, K. J.  
\*Dixon, J. G.  
\*Dixon, N. J.  
Dowling, Vincent  
Down, G. L.  
Downer, D. C. (Miss)  
Drury, R. W.  
\*Duffy, P. D.  
Durell, L. A. (Miss)  
Durrant, R. A.  
Ednie, P. S.  
Eldridge, L. M. J. (Miss)  
\*Elliott, G. F.  
\*Elwell, Thomas  
Entwistle, Norman  
Farrow, H. C.  
\*Froud, M. C.  
Fuller, D. W.  
Gibbs, R. A.  
\*Gleaves, Kenneth  
Goddard, Walter  
Goodman, R. H.  
Goss, N. A.  
Gowan, James  
Gowers, C. A. B.  
\*Grinyer, Roy  
Grundy, C. B.  
\*Hall, D. V.  
Hambly, M. G. C. (Miss)  
Hamill, Peter  
Hands, D. C.  
Harris, H. L. W.  
\*Harrison, D. R.  
Haworth, Joyce (Miss)  
Hayhurst, William  
\*Hinton, F. C. H.  
Hobbs, C. E.  
Hogarth, D. J.  
\*Houghton-Evans, W.  
Houston, D. J. (Miss)  
Howarth, Stephen  
Hubert, D. W.  
\*Huckle, R. A.  
\*Hudson, A. C. C.  
\*Humphreys, W. A.  
\*Hurley, L. A.  
Jones, D. H.  
Jones, E. D.  
Jones, P. E.  
Large, J. K.  
Last, R. P.  
\*Lawson, A. W.  
Learmount, C. B.  
\*Lilley, T. L.

Lomas, J. H.  
Lord, C. R. P.  
\*McCall, A. R.  
McLean, H. W.  
MacMillan, A. B.  
Mansfield, E. J. D.  
\*Matcham, A. E.  
Miles, E. W.  
Misseldine, Denys  
Moore, P. M. D.  
Munce, J. F.  
Munden, P. J.  
\*Musgrove, L. N.  
\*Naden, F. R.  
Nicholson, W. F. J.  
Odam, J. C. H.  
O'Gorman, J. A.  
Owen, R. E.  
Partridge, M. G. (Miss)  
Pickford, S. G.  
Pigott, M. M.  
\*Pochin, V. H. B.  
Pomeroy, J. S.  
Powell, B. G.  
Power, A. D.  
Price, Margaret (Miss)  
Prosser, J. H.  
\*Ramsay, J. M.  
†Randall, B. R. (Miss)  
Reed, W. J.  
\*Reidy, W. M.  
\*Rich, S. G.  
Roberts, Norman  
Robinson, Frank  
Rogers, R. G.  
\*Rosser, E. H.  
Sadler, P. E.  
\*Scoble, G. J.  
\*Sears, R. W.  
Sharp, A. G. F.  
Shaw, Denis  
\*Shaw, R. W.  
Sheldon, J. F.  
Shipley, W. I.  
Simpson, B. J.  
Singleton, Peter  
\*Sleigh, F. J.  
\*Smith, Robert  
Stickland, J. P. (Miss)  
Stoneham, D. W.  
\*Supple, Z. A.  
Swain, A. H.  
Sweetman, E. C.  
Swindale, G. E.  
\*Tabraham, G. D.  
Taylor, J. T. R.  
Taylor, John  
Taylor, John  
\*Thomas, E. R. J.  
\*Thomas, J. M.  
\*Thomas, R. P.  
\*Thompson, G. H. F.  
Thorpe, D. B.  
Tollow, S. M. (Miss)  
\*Topping, James  
Towell, E. A.  
Tranter, A. E.  
\*Waite, Donald  
\*Walsworth, R. H.  
Ward, Cecil  
Ward, S. M. (Miss)  
\*Watkins, Ronald  
Watson, J. G.  
\*Way, A. H.  
Wenman, G. A.  
\*Wild, J. K.  
Yandell, T. J.  
Young, J. R. S.

\*Subject to approval of History Thesis or Theses.

†Subject to approval of remaining Testimonies of Study.

The following candidates have also completed their qualifications and have now passed the Intermediate Examination:

Baron, Geoffrey  
Turner, M. W.

#### The Final Examination, December 1947

The Final Examination was held in London, Edinburgh and Belfast from 3 to 12 December 1947.

Of the 176 candidates examined, 78 passed as follows:

Passed Whole Examination	33
Passed Whole Examination, subject to approval of Thesis	29
Passed Whole Examination, subject to approval of remaining Testimonies of Study and Thesis	2
Passed Part 1 only	13
Passed Part 2 only	1
	78

98 candidates were relegated.

The successful candidates are as follows:

#### Whole Examination

Anderton, Peter D.  
Bell, Donald W.  
\*Bennett, Philip H. P.  
\*Blockley, Leonard H.  
\*Brown, Dennis H.  
\*Brown, William N.  
Browning, Robert C. W.  
\*Butcux, Harold E.  
Carter, John B.  
†\*Caulfield, Roy F. F.  
\*Chamberlain Peter H. G.  
\*Chandler, Leslie  
\*Duckworth, R. Bryan  
Ellis, Eileen M. (Miss)  
\*Fender, Brian G.  
\*Flinder, Alexander  
\*Frankish, Gerald D.

Gregory, Terence W. (Distinction in Thesis)  
 Hains, Eric P.  
 Grieron, Colin  
 \*Hall, Arnold  
 Harvey, William J.  
 Havers, Norman  
 \*Holden, George F.  
 Hughes, Eric C. C. (Distinction in Thesis)  
 \*Ingall, Howard G.  
 Jacob, Christopher H.  
 Johnson, Brian R.  
 Johnston, Dorothy K. (Miss)  
 \*Jolly, Ernest W.  
 Kempton, Claude W.  
 Lacey, Kenneth L. J. (Distinction in Thesis)  
 Lavender, Mavis E. (Miss)  
 \*Leach, Basil F.  
 Lister, Martin H.  
 Lovell, George R.  
 McDonald, Angus  
 MacGregor, Penelope A. (Miss)  
 Marston, Sidney B.  
 \*Subject to approval of Thesis.  
 †Subject to approval of remaining Testimonies of Study.

#### Part 1 only

Blastland, William C.  
 Blight, Ernest  
 Bourne, Edmund M.  
 Boyer, Ernest S.  
 Cleverly, Lionel M.  
 Goodchild, Jeanne F. (Miss)  
 Hughes, Kenneth S.  
 Jones, Felix A.  
 Masters, Peter H.  
 Measday, Clifford M.  
 Penfold, Henry G.  
 Vivian, John V. J.  
 Wisniewski, Wiktor, M.P.

#### Part 2 only

† \* Martin, Wilfred

\*Subject to approval of Thesis.

†Subject to approval of remaining Testimonies of Study.

**The Special Final Examination, December 1947**  
 The Special Final Examination was held in London, Edinburgh and Belfast from 3 to 12 December 1947.

Of the 307 candidates examined 113 (22 in Part 1 only and 1 in Part 2 only) passed. 194 candidates were relegated.

The successful candidates are as follows:

#### Whole Examination

Adams, Bernard C.  
 Alford, Frederick C.  
 Austin, Ernest H. W.  
 Bale, Howard, F. S.  
 Barns, Kenneth W.  
 Batho, Laurence W.  
 Bhogle, Manohar G.  
 Birch, James S.  
 Bird, Kenneth J.  
 Boutell, Leonard J.  
 Bowden, Cyril  
 Boxall, Reginald A.  
 Brown, Albert E.  
 Brown, James C.  
 Castiglione, Alfonso R.  
 Claridge, Bryan  
 Clarke, Richard  
 Cleaver, Gilbert R.  
 Collings, Vivian G.  
 Davies, Kenneth L.  
 Davison, Ernest W.  
 Elmers, Joseph H.  
 Fosbury, Ernest A.  
 Foster, Ivor G.  
 Giddings, Hubert R.  
 Goodey, Wilfred  
 Graydon, Robert W.  
 Griffin, George R. E.  
 Gurling, Reginald P. H.

Gurney, Geoffrey H.  
 Haines, Harry S.  
 Hames, Jack C. M.  
 Harvey, Albert E.  
 Haworth, Kenneth H.  
 Hill, Derek J.  
 Hodnett, Alfred E.  
 Holland, William F.  
 Hughes, Henry G.  
 Hutchinson, Ralph Jack, Charles D.  
 Jones, F. Evan  
 Kimm, Charles F.  
 Kirkham, John K.  
 Lambourn, R. Alan  
 Larbalestier, Francis H.  
 Lawrence, Sidney G.  
 Little, J. Michael D.  
 Lodge, George  
 Lovegrove, Cyril E.  
 McRobbie, John A.  
 Main, Thomas B.  
 Marchant, George W.  
 Mew, Leonard  
 Mitchell, Maurice T.  
 Mold, Arthur H. W.  
 Overbury, Thomas (Jnr.)  
 Parry-Evans, David  
 Pickles, Richard H.  
 Piercy, Thomas J.  
 Pimm, Arthur S. B.

#### Part 1 only

Attenborough, Alan  
 Bell, Harold E.  
 Booth, John R.  
 Braine, Donald J.  
 Carpenter, Ronald D.  
 Crowe, Michael  
 Fenton, Reginald F. S.  
 Freeman, Geoffrey E.  
 Gibbs, Stephen J.  
 Higginbotham, Harry W.  
 Keating, Philip F.  
 Kemp, Ronald G.  
 Kolbuszowski, Witold W.  
 O'Connor, Kenneth S.  
 Packer, Douglas A.  
 Palmer, Reginald T.  
 Polubiec, Henryk  
 Raiker, William G.  
 Reid, William  
 Taylor, Harry  
 Ward, Laurence H. J.  
 Wilson, Frederick W.

#### Part 2 only

Devine, Edward A.

The following candidates have also passed the Special Final Examination:

Burgoine, Peter F.  
 Finlayson, William E.  
 Lawson, John B.  
 Rampton, Thomas L.  
 Sherret, David

**The Examination in Professional Practice for Students of Schools of Architecture Recognized for Exemption from the R.I.B.A. Final Examination**

The Examination was held in London and Edinburgh on 9 and 12 December 1947. Of the 25 candidates examined, 23 passed and 2 were relegated.

The successful candidates are as follows:

Allan, Robert  
 Axtell, Elaine (Miss)  
 Cousin, Esme (Miss)  
 Dempster, Thos. A. B.  
 Evans, Daphne C. (Miss)  
 Ferrie, James W.  
 Gray, John  
 Hatton, Peter H.  
 Harvey, Robert W.  
 Kirkwood, James  
 Lobban, William  
 Lomax, John P.  
 Mackinnon, Jean M. (Miss)

Munnich, Krzysztof  
 Pitman, Sheila (Miss)  
 Rains, John E.  
 Robertson, Hugh S.  
 Shanks, Donald A.  
 Tavener, Brenda J. (Miss)  
 Thomson, Edward G.  
 Thomson, Ronald G.  
 Walker, David E.  
 Winter, Odele M. D. (Miss)

## ALLIED SOCIETIES

**The Royal Institute of the Architects of Ireland. Officers and Council for 1948**

Mr. Frank McArdle, *President*; Mr. W. H. Howard Cooke, *Vice-President*; Mr. John L. Griffith, *Hon. Secretary*; and Mr. Charles Aliaga Kelly, *Hon. Treasurer*.

*Council:* Messrs. E. D. Buckley, J. M. Fairweather, Desmond FitzGerald, Emmet Humphreys, T. F. Inglis, T. P. Kennedy, Raymond McGrath, G. McNicholl, Henry H. Hill (Provincial seat), H. S. Robson (Representative of the Architectural Association of Ireland), and David P. Hanly (Representative of the Architectural Graduates Association, N.U.I.).

*Past-Presidents, ex-officio Members of Council:* Messrs. Harry Allberry, G. F. Beckett, L. F. Giron, F. G. Hicks, Stephen S. Kelly, Vincent Kelly, L. O'Callaghan, J. J. Robinson, G. P. Sheridan and James H. Webb. The last Ulster architect to hold the office of President was the late W. H. Lynn, R.H.A., who was elected in 1886.

Mr. McArdle has been President of the Royal Society of Ulster Architects on two occasions, and Member of Council of the Royal Institute of British Architects on four occasions, and is the newly elected Chairman of the Codes of Practice Panel set up in Northern Ireland. He has been responsible for many important undertakings in North and South of Ireland. Mr. R. H. Gibson was raised to the rank of Fellow during the year.

The following were admitted to membership during 1947: Capt. Philip V. Brennan, Messrs. Hubert Briscoe, Patrick A. Devaney, R. N. Dobbyn, John M. Dunne, Michael Hulton, Denis J. Kelly, Arthur H. Lardner, Turlough Lynch, Niall Meagher, James O'Hanlon Hughes, C. O'Reilly, R. R. Patterson, W. F. Phillips, Oscar C. Richardson, T. F. Randal, John C. Thompson, Mrs. Sheila Crowe and Miss Mary Fitzgibbon. Mr. Gordon O'Neill [F] was re-elected a member.

#### Change of Officer and Address

*The Royal Institute of the Architects of Ireland.* President: Mr. F. McArdle, 'Brookhampton', Andersonstown, Belfast.

## COMPETITIONS

**New Memorial Building at Great Russell Street, W.C.1, for the T.U.C.**

The General Council of the Trades Union Congress invite architects of British nationality, or architects resident in this country, to submit designs in competition for the T.U.C. Memorial Building, which they propose to erect on a site in Great Russell Street, London. Assessor: Sir Percy Thomas, O.B.E., Hon. LL.D., P.P.R.I.B.A. Premiums: £2,000, £1,000 and £500. Last day for submitting designs: 30 June 1948. Conditions may be obtained on application to the General Secretary, Trades Union Congress, Smith Square, London, S.W.1. Deposit: £2 2s.

**The Royal National Eisteddfod of Wales 1948: Two Architectural Competitions**

Competition 192 is for a county college. Competition 193 is for a lay-out for a neighbourhood unit.

Assessors: Mr. C. F. Bates [F] and Mr. T. Alwyn Lloyd [F].  
 Premium in each competition: £50.  
 Last day for submitting designs: 14 June 1948.  
 Conditions may be obtained on application to the Rev. W. J. Samuel, General Secretary, The Royal National Eisteddfod of Wales, Victoria House, 38 Dunraven Place, Bridgend.

## MEMBERS SERVING WITH THE FORCES

### Decorations and Distinctions

Officers of the Order of Orange Nassau with Swords

Adams, P. W. [F], Lieut.-Col., R.E.  
 Evans-Vaughan, G. F. [A], Lieut.-Col., R.E.

## GENERAL NOTES

### The City and Borough Architects' Society

The City and Borough Architects' Society was inaugurated at a meeting held at the R.I.B.A. on 30 January. A Provisional Committee was established and the following officers were elected: *Chairman*, Mr. Leonard C. Howitt, B.Arch. (L'pool) [F], City Architect of Manchester. *Vice-Chairman*, Mr. R. A. H. Livett, O.B.E. [A], City Architect of Leeds. *Secretary*, Mr. Johnson Blackett [F], Borough Architect of Newport, Mon. *Assistant Secretary*, Mr. Denis Winston, M.A., B.Arch. (L'pool) [F], Borough Architect of Southampton. *Treasurer*, Mr. George Kenyon, Dip.Arch. (L'pool) [A], City Architect of Newcastle-upon-Tyne.

The Society consists of whole-time chief officers designated as City Architects or Borough Architects, and whose predominant duties are in either of those capacities. It will fulfil for municipal chief architects the functions already performed for their County colleagues by the County Architects' Society, with which it will co-operate on all matters of mutual concern.

Its objects, which are similar to those of the County Architects' Society, are as follows:

- To discuss all architectural and allied matters affecting County Borough Councils and Borough Councils served by members of the Society.
- To arrange for the collation of information and to provide a means whereby the know-

ledge and experience of its members can be made available to its own members and/or their councils.

(c) To promote discussion on professional, administrative, technical, and other matters of concern to the Society, and to afford help to members in their duties and problems.

The Society will collaborate with the R.I.B.A. to the maximum degree, and one of its aims is to extend the influence of the profession into important circles concerned with local government in which the interests of architects and architecture have hitherto been without representation.

### Liverpool Research Fellowships 1948

Application is invited for Fellowships and Grants in aid of research. The Fellowships and Grants are intended for senior workers who are prevented by routine duties or pressure of other work from carrying out research. They are limited to British-born subjects normally resident in the United Kingdom. In exceptional circumstances the Trustees may waive the condition as to residence.

The Trustees are also prepared to consider applications from groups of workers engaged upon co-operative programmes of research particularly from those engaged upon long-distance programmes or in institutions in which the normal facilities for research have been curtailed by the war.

The duration of the awards will not normally extend over more than two years or less than three months, and the amount will depend on the nature of the research and the circumstances of the applicant.

Forms of application may be obtained from the Secretary, Dr. L. Haden Guest, M.C., M.P., Leverhulme Research Fellowships, 7 Bedford Row, London, W.C.1. Applications must be received on or before 1 March 1948. Awards will be announced in July and will date from 1 September 1948.

### School of Planning and Research for Regional Development — Three Months' Completion Courses

The Final Completion Course in Town and Country Planning ended on 20 December 1947. The following candidates passed the course successfully: Distinctions were obtained by K. Watts, B.Sc. Geography (Southampton);

R. F. F. Williams, A.M.Inst.Mun.Eng. (Cheshire); K. D. Fines (Sussex); T. N. W. Akroyd, M.Sc. (Lancs).

Other successful candidates were: D. Goldhill [A] (London); J. A. Smeed, B.Sc. (Estate Management) (Herts); I. G. MacLaurin [A] (Hants); J. D. Cordwell [A]; L. Mellinger [A] (London); R. Gorbings (London); L. Doudkin (Palestine); T. A. Baldwin [A] (London); F. H. B. Layfield (Durham); R. H. Pullan, B.Sc.Civil Engineering (Birmingham); J. A. Brant (Gloucestershire); D. A. Tooke, B.A.Geog. (Leicester); J. A. Francis (Wiltshire); A. E. Rochard-Thomas, A.R.I.C.S. (Surrey).

Of the 162 students who have attended these courses, 155 have passed out successfully.

The School has now started a one-year full-time Diploma Course in Town and Country Planning. Particulars may be obtained from the Secretary, School of Planning and Research for Regional Development, 34 Gordon Square, London, W.C.1.

### The Illuminating Engineering Society

The Society will hold their summer meeting at Harrogate from 16 to 19 June 1948. Papers will be read on *An Acrylic Plastic in Lighting; Decorative Lighting; The Design of Lighting Installations with Special Reference to the Textile Industry; New Lamp Developments*; and there will be a lecture and demonstration on television. Those interested should apply for the necessary forms to the Secretary of the Society at 32 Victoria Street, London, S.W.1.

### Liverpool Architectural Society Centenary Prizes

The Council of the Liverpool Architectural Society, to mark its Centenary, are offering two prizes annually to pupils at local Public and Secondary Schools. The prizes are:—

*The W. Unsworth Architectural Essay Prize.* £3 3s. and three certificates for the best essay on 'which building, erected during the present century, has in your opinion contributed the most to the dignity and architectural distinction of Liverpool.'  
*The T. E. Eccles Architectural Sketching Prize.* £3 3s. and three certificates 'for the best sketch in any medium of the whole or part of an existing building.'

Particulars from Hodgson, Morris & Co., 41, North John St. Liverpool, 2.

## Membership Lists

### ELECTION: 13 JANUARY 1948

The following candidates for membership were elected on 13 January 1948:

#### AS FELLOWS (16)

Ablett: Herbert Kellett [A 1940], Nottingham.  
 Bacon: Clarence [A 1934], Taunton.  
 Booth: David, A.A.Dip. [A 1932].  
 Davies: Thomas Summers [A 1936], Shrewsbury.  
 Ford: Hugh Hubbard [A 1930].  
 Martin: John Leslie, M.A., Ph.D. [A 1930].  
 Scott: John Malcolm, B.Arch. (1st Class Hons.) (Liverpool) [A 1937].  
 Walker: Winston, A.A.Dip. [A 1935].  
 Williams: Charles Philip (Lieut.-Col., R.E.) [A 1937].  
 And the following Licentiates who have passed the qualifying Examination:  
 Clark: Walter Henry.  
 Miller: Albert Ernest.  
 Multon: Leonard James, Birmingham.  
 Penn Smith: Sydney, Leicester.  
 Schreiner: Johannes.  
 Stevenson: Ralph Webber.  
 And the following Licentiate who is qualified under Section IV Clause 4 (ii) of the Supple-

mental Charter of 1925:

Davies: Herbert John.

#### AS ASSOCIATES (70)

Ambler: Joyce Kathleen Osborne (Miss), B.A. (Sheffield) Sheffield.  
 Barbary: Peter John (Major R.A.), M.B.E., G.M., Redruth.  
 Bishop: Lloyd Jack, Belfast.  
 Bowler: Frederick Charles, Leicester.  
 Brett: Michael (Major R.A.), Liverpool.  
 Caines: Ruth Margaret (Miss), Southampton.  
 Cowan: William, Strathpeffer, Ross-shire.  
 Cowieson: John Ramsay, Dip.Arch (Aberdeen), Inverness.  
 de Saulles: Mary (Mrs.).  
 Dickson: William Ramsay, Motherwell.  
 Drake: Frederick William.  
 Ensor: Thomas, Annaghmore, Co. Armagh.  
 Evans: Frank Lee, Liverpool.  
 Faulkner: Patrick Arthur.  
 Finlayson: William Eric, Paisley.  
 Firbank: Ronald Edmund.  
 Firth: Harold.  
 Fraser: Richard, Edinburgh.  
 Gardiner: Mary Vida (Miss).  
 Gates: Albert George.  
 Goldfinch: Arthur James, West Kirby.  
 Goldhill: David.  
 Gooch: George Bernard, Wirral.

Griffiths: Charles Lewis, Birmingham.  
 Gwilym: Clifford, Chester.  
 Hartford: Huntley Julian Lewis, M.A.(Cantab).  
 Hepworth: Arthur Jackson.  
 Hughes: James Quentin, M.C., B.Arch, Liverpool.  
 Hutt: Sidney, Gateshead.  
 Hutton: Joan Elizabeth (Mrs.), B.Arch. Lancaster.  
 Leary: Patrick Joseph.  
 Magson: William, Junr., M.B.E., Blyth.  
 Marinier: Hildyard Viry.  
 Metcalf: Mary (Miss), Morpeth.  
 Millar: John Stanley, Liverpool.  
 Mitchell: Norman Brake, M.B.E., Belfast.  
 More: Olive Margaret (Miss).  
 Morison: John, B.A.(Cantab).  
 Muirhead: William, Birmingham.  
 Nurse: Cecil Richmond, Bristol.  
 Nutter: Laurence Raymond, Bingley.  
 Parkinson: Leslie Ernest, Newport, Isle of Wight.  
 Paterson: Ian Watson, Nairn.  
 Petter: Ernest Tulloh.  
 Pomfret: Arthur, Macclesfield.  
 Poole: Ralph Stannard.  
 Pope: David Thorold Browning, A.M.T.P.I.  
 Power: Alan John.  
 Priestley: Barbara Elizabeth (Miss).  
 Robson: Clarence Winter, Edinburgh.



Rogerson: Josephine Grace (Mrs.), Halifax.  
 Russell: Maurice, Aberdeen.  
 Sheffield: Frank Charles.  
 Sherret: David (Major R.E.), M.C., Glasgow.  
 Smee: Gordon Ernest, Portsmouth.  
 Stark: Ivan Alexander, Winlaton, Co. Durham.  
 Stronach: Elsbeth Fordyce (Miss).  
 Taylor: Douglas Phillimore.  
 Thornton: Frederick, Wakefield.  
 Trustam: Walter James, Wakefield.  
 Vine: Sidney Frederic.  
 Watson: Alexander Scott Addison, Renfrew.  
 Weeks: John Reginald.  
 West: John Charles Percy.  
 White: Kenneth Charles.  
 Wigley: Ronald Richard David, M.C.  
 Williamson: Stephen Shirley, Bridport.  
 Williamson: William Henry, Newcastle-upon-Tyne.  
 Wilson: James Howard, Warrington.

#### AS LICENTIATES (14)

Biggin-Pound: William Jack.  
 Boughton: Charles Stephen.  
 Buttress: Arthur John.  
 Day: Donald Ephraim, Bournemouth.  
 Frankel: Rudolf.  
 Green: Alexander, Glasgow.  
 Hodges: Ivor.  
 Hogarth: William Victor, Liverpool.  
 Kingsbury: Alfred Victor Barter, Bournemouth.  
 Lindy: Kenneth John.  
 Moro: Peter.  
 Morris: Leslie Frank.  
 Rowntree: Thomas Herbert, Leeds.  
 Wintle: Arthur Edward.

#### ELECTION: 9 MARCH 1948

An election of candidates for membership will take place on 9 March 1948. The names and addresses of the candidates, with the names of their proposers, found by the Council to be eligible and qualified in accordance with the Charter and Bye-laws, are herewith published for the information of members. Notice of any objection or any other communication respecting them must be sent to the Secretary, R.I.B.A., not later than Saturday 6 March 1948.

The names following the applicant's address are those of his proposers.

#### AS HON. FELLOWS (2)

Macmillan: The Right Hon. Lord, G.C.V.O., LL.D., Moon Hall, Ewhurst, near Guildford, Surrey. Proposed by the Council.

Wavell: Field-Marshal (Archibald Percival) Earl, P.C., G.C.B., G.C.S.I., G.C.I.E., C.M.G., M.C., 23 Kingston House, Knightsbridge, S.W.1. Proposed by the Council.

#### AS HON. ASSOCIATES (4)

Keir: Sir David Lindsay, M.A.(Oxon), Hon. LL.D. (Glasgow and Dublin), The Vice-Chancellor's Lodge, Lennoxvale, Belfast. Proposed by the Council.

Moore: Henry Spencer, Hon. D.Litt., Hoglands, Perry Green, Much Hadham, Herts. Proposed by the Council.

Norman: Ronald Collet, Moor Place, Much Hadham, Herts. Proposed by the Council.

Rushbury: Henry, R.A., R.W.S., R.E., 8 Netherthorpe Grove, Chelsea, S.W.10. Proposed by the Council.

#### AS FELLOWS (9)

Broadbent: Francis George [A 1938], 13 Crawford Street, W.1, 86 Richmond Park Road, S.W.14. H. S. Goodhart-Rendel, Robert Atkinson, A. F. B. Anderson.

Henniker: Richard Frederick, M.A. (Cantab) [A 1934], 14a Berkeley Mews, Portman Square, W.1. Thos. Ritchie, D. L. Bridgwater, E. D. J. Mathews.

Hewlett: Reginald Maurice [A 1937], Lloyds Bank Chambers, Taunton, Mountway, Taunton. H. S. W. Stone, E. C. Francis, G. D. G. Hake.

Napper: Jack Hollingworth, M.A., A.M.T.P.I. [A 1936], 56 Eldon Place, Newcastle-upon-Tyne, 1. W. B. Edwards, Prof. R. A. Cordingley, the late H. L. Hicks.

Pilley: Amnon Vivian [A 1932], 7 Hill Road, St. John's Wood, N.W.8. F. R. S. Yorke, A. F. Benjamin, the late Prof. Sir Charles Reilly.

Powell: John Ardern, M.A., A.A.Dip. [A 1936], 3 Lower Terrace, Torquay; Southcliffe, Tor Park Road, Torquay. H. C. Powell, J. C. C. Bruce, John Swarbrick.

Toy: Clement George [A 1935], 7 Fore Street, Taunton; Whitegates, Galmington, Taunton. H. S. W. Stone, E. C. Francis, A. J. Toomer.

Young: Alan Rutherford [A 1933], 17 Easy Row, Birmingham, 1; Little Orchard, Stourton, near Stourbridge. George Drysdale, T. M. Ashford, Herbert Jackson.

And the following Licentiate who has passed the qualifying Examination:

Richardson: Robert Henry Willoby, Medecroft, Rudgwick, near Horsham, Sussex. Graham Dawbarn, H. R. Steele, Samuel Beverley.

#### AS ASSOCIATES (38)

The name of a school, or schools, after a candidate's name indicates the passing of a recognized course.

Biddulph: Dennis Sydney Golden (Birmingham Sch. of Arch.), 47 High Street, Church Stretton, Shropshire. A. G. Chant, George Drysdale, A. N. Harris.

Bird: Thomas Arthur, D.S.O., M.C. (Arch. Assoc. (London): Sch. of Arch.), 32 Stanford Road, Kensington, W.8. R. F. Jordan, L. H. Bucknell, Howard Robertson.

Burgoin: Peter Frederick [Final], Coventry House, John Rous Avenue, Canley, Coventry. J. W. Spink, A. C. Bunch, Rolf Hellberg.

Burrows: Walter Frederick [Final], Manesty, Row Town, Weybridge, Surrey. J. S. Walkden, Joseph Addison, E. C. Scherrer.

Clarke: Arthur Derek [Final], 401 Northdown Road, Cliftonville, Margate, Kent. F. A. Perren, W. R. H. Gardner, L. S. Stanley.

Conway: Leslie John [Special Final], 45 Trinity Rise, Tulse Hill, S.W.2. C. G. Stillman, H. W. Burchett, Joseph Addison.

Darnell: Fitzherbert (The Poly., Regent Street, London: Sch. of Arch.), 146 Goldhawk Road, W.12. E. C. Scherrer, J. K. Hicks, J. S. Walkden.

Duncan: Margaret Elizabeth Lois Susan (Mrs.) (Arch. Assoc. (London): Sch. of Arch.), c/o Architectural Association, 36 Bedford Square, W.C.1. R. F. Jordan, Howard Robertson, L. H. Bucknell.

Ede: Ernest Darrell (Arch. Assoc. (London): Sch. of Arch.), c/o London House, Guilford Street, W.C.1. R. F. Jordan, L. H. Bucknell, H. G. Goddard.

Everett: Alan George [Special Final], 179a Priory Road, Hornsey, N.8. T. E. Scott, T. E. North, Miss G. W. M. Leverkus.

Fury: Ronald William [Final], 88 Elms Crescent, Clapham Park, S.W.4. Norman Keep, T. J. Lynch, Robert Cromie.

Gabriel: Elisabeth (Miss) (Arch. Assoc. (London): Sch. of Arch.), Leskinferre, Millfield

Place, Highgate West Hill, N.6. Frederick Gibberd, The Hon. Godfrey Samuel, R. F. Jordan.

Graham: John Netherby (Arch. Assoc. (London): Sch. of Arch.), 10 Woronzow Road, St. John's Wood, N.W.8. W. E. Thomson, Joseph Emberton, Frederick MacManus.

Grieb: Kenneth William (Arch. Assoc. (London): Sch. of Arch.), 4 Grange Road, Totteridge, N.20. H. D. Kidd, Howard Robertson, The Hon. Godfrey Samuel.

Grinling: Robert Sidney (Arch. Assoc. (London): Sch. of Arch.), 'Belwethers', Cranleigh, Surrey. P. J. Westwood, Howard Robertson, R. F. Jordan.

Hardy: Alan Walter (Nottingham Sch. of Arch.), 72 Hillway Crescent, Mansfield, Notts. George Checkley, F. W. Tempest, J. W. M. Dudding.

Hayhoe: Harold Robert [Final], 24 Weston Drive, Stanmore, Middlesex. E. C. Scherrer, J. K. Hicks, Leslie Chackett.

Hill: Richard Towing (Arch. Assoc. (London): Sch. of Arch.), 97 St. Mark's Road, W.10. G. D. G. Hake, R. F. Jordan, E. H. Button.

Hope: Roy Thomas (Edinburgh Coll. of Art: Sch. of Arch.), Glenogle Private Hotel, 1 Kilgraston Road, Marchmont, Edinburgh, 9. Leslie Grahame-Thomson, A. D. Haxton, W. I. Thomson.

Irving: Mary Ninanne (Miss) (Liverpool Sch. of Arch.: Univ. of Liverpool), 125 Waterloo Road, Birkdale, Southport. Prof. L. B. Budden, Herbert Thearle, Donald Brooke.

Kallmann: Gerhard Michael, A.A.Dip. (Arch. Assoc. (London): Sch. of Arch.), 1 Turner Close, Meadow, N.W.11. Frederick Gibberd, William Crabtree, R. F. Jordan.

Laird: Matthew Stevenson, M.B.E. (Edinburgh Coll. of Art: Sch. of Arch.), 3 Spottiswoode Street, Edinburgh, 9. William McCrea, W. J. Smith, A. H. Mottram.

Leahy: Raymond Stuart (Univ. Coll., Dublin, Ireland: Sch. of Arch.), Glenlara, Knockree Park, Douglas Road, Cork, Eire. Prof. J. V. Downes, Vincent Kelly, J. J. Robinson.

Luck: Leonard Ernest [Final], 5 Cumberland Villas, Milton Road, Gravesend, Kent. Leonard Pickford, E. B. Musman, F. M. Kirby.

Martin: Lewis Edward (Arch. Assoc. (London): Sch. of Arch.), 4 Russell Road, W.14. Christopher Nicholson, Howard Robertson, The Hon. Godfrey Samuel.

Meller: Josef (The Poly., Regent Street, London: Sch. of Arch.), 76 Elgin Crescent, W.11. E. C. Scherrer, J. K. Hicks, R. G. Covell.

Mellinger: Lucas Emmanuel Mathias (Northern Poly. (London): Dept. of Arch.), 79a Cornwall Gardens, S.W.7. T. E. Scott, G. G. Macfarlane, Ivor Shaw.

Murphy: Joseph William [Final], 23c Montpelier Road, Ealing, W.5. A. W. Hall, C. Scriven, P. V. Burnett.

Pallister: Lionel Keith (King's Coll. (Univ. of Durham), Newcastle-upon-Tyne: Sch. of Arch.), St. Mary's Mount, Jesmond, Newcastle-upon-Tyne. Prof. W. B. Edwards, R. N. MacKellar, J. C. Clayton.

Pocock: Jean (Miss) (Welsh Sch. of Arch.: The Tech. Coll., Cardiff), Charlton Hotel, 26 Aberdeen Park, Highbury, N.5. Lewis John, T. A. Lloyd, C. F. Jones.

Prasad: Shivnath, Dip.Arch. (Edin.), Dip.T.P. (Edin.) (Edinburgh Coll. of Art: Sch. of Arch.),

15 South Learthmouth Gardens, Edinburgh.  
W. I. Thomson, Leslie Grahame-Thomson,  
A. H. Mottram.

**Price: Rosemary Ann (Mrs.)** (Arch. Assoc. (London) Sch. of Arch.), 52 Redcliffe Road, S.W.10. Frederick Gibberd, G. A. Cope, Howard Robertson.

**Reid: Kenneth Cato** [Final], 65 Westmere Drive, N.W.7. W. H. Hamlyn, Sidney Loweth, Harry Holland.

**Richards: David Haydn** (Welsh Sch. of Arch.: The Tech. Coll., Cardiff), 95 High Street, Rhymney, Mon. Lewis John, Harry Teather, C. F. Jones.

**Roake: John** (Northern Poly. (London): Dept. of Arch.), 35 Bonser Road, Strawberry Hill, Middlesex. T. E. Scott, H. Lidbetter, the late Prof. Sir Charles Reilly.

**Tallet: Margaret Pauline (Miss)** [Final], 9 Charlton Avenue, Walton-on-Thames, Surrey. Applying for nomination by the Council under Bye-law 3 (d).

**Vincent: James Leonard Schofield** [Final], 2 Freme Close, West Derby, Liverpool, 11. F. Chippindale, A. F. Bryan, G. A. Cope.

**Wisdom: David Norman** (Northern Poly. (London): Dept. of Arch.), 48 Oakfield Road, Southgate, N.14. T. E. Scott, H. A. Welch, F. J. Lander.

#### AS LICENTIATES (34)

**Akerman: Reginald Ernest**, 34 Palace Court, Bayswater, W.2; 18 Sandhurst Avenue, Tolworth, Surbiton, Surrey. F. T. Dear, M. H. Thomas, F. R. S. Yorke.

**Allan: John Duncan**, c/o Messrs. Wm. Baillie and Son, 4 West Regent Street, Glasgow, C.2; 'Brooklea', 17 Coral Glen, Maybole, Ayrshire, Scotland. John Stewart, William McCrea, Colin Sinclair.

**Bisping: Charles William**, c/o Robert Cromie, Esq. [F], 10 Manchester Square, W.1; 77 Central Avenue, Herne Bay, Kent. Robert Cromie, H. W. Matthews, and applying for nomination by the Council under Bye-law 3 (d).

**Briggs: Ella (Mrs.)**, 9 Slades Gardens, Enfield, Middlesex. A. G. MacDonald, M. R. Hofler, and applying for nomination by the Council under Bye-law 3 (d).

**Dalling: Jack Ernest**, 48 Cannon Street, E.C.4; 103 Priory Road, Hornsey, N.8. B. W. Turnbull, E. A. Fermaud, and applying for nomination by the Council under Bye-law 3 (d).

**Dickin: Albert William**, 3 Berkeley Square, Bristol, 8; The Corner House, Hambrook, Bristol. Applying for nomination by the Council under Bye-law 3 (d).

**Engel: Bernard**, 8 New Square, Lincoln's Inn, W.C.2. Clyde Young, Edward Maufe, Hubert Worthington.

**Harris: Cecil John**, c/o Messrs. Donald Hamilton and Partners, 7 Connaught Place, W.2; 130 Regal Way, Preston Road, Harrow. T. E. Scott, E. S. Underwood, M. R. Hofler.

**Heffer: William Walter**, Ministry of Works, Abell House, John Islip Street, Westminster, S.W.1; 22 Branscombe Gardens, Thorpe Bay, Essex. W. F. Granger, F. Sutcliffe, C. G. Mant.

**Hoinig: Edgar**, Durlstone Manor, Champion Hill, S.E.5. Edwin Williams, R. N. Vanes, W. F. B. Lovett.

**Knight: Arthur Lionel**, Assistant Clerk of the Fabric, Univ. of Leeds; 52 Victoria Walk, Horsforth, near Leeds. Peter Cummings, Rupert Medcalf, T. B. Medcalf.

**Kurz: Alexander**, 49 Southgate Street, Winchester, Hants. C. Cowles-Voysey, A. C. Townsend, A. E. Geens.

**Langtry-Langton: John Henry** (Capt. R.E.), Dean House, Piccadilly, Bradford; 8 Oak Mount, Manningham, Bradford. The President and Hon. Sec. of the West Yorks Soc. of Arch. under Bye-law 3 (a), and applying for nomination by the Council under Bye-law 3 (d).

**Macfarlane: Alexander Archibald**, Scottish C.W.S. Ltd., 119 Paisley Road, Glasgow; 1557 Great Western Road, Glasgow, W.3. T. J. Beveridge, and the President and Sec. of the Glasgow Inst. of Arch. under Bye-law 3 (a).

**McIntosh: Andrew Norman**, c/o Architect's Office, L.M. & S. Rly. Co., Watford; 122 Uxbridge Road, Hatch End, Middx. W. H. Hamlyn, Harry Holland, and applying for nomination by the Council under Bye-law 3 (d).

**Neville: John Thomas Burdett**, County Architect's Dept., County Hall, Northampton; 35 Rowan Avenue, Boothville, Moulton, Northampton. Joseph Perkins, F. H. Allen, Walter Rosser.

**Penman: John**, 16 Tay Street, Perth; 13 Oakbank Crescent, Perth. R. M. Mitchell, and the President and Sec. of the R.I.A.S. under Bye-law 3 (a).

**Pollard: William Ernst Ludwig**, Ministry of Works, Leeds; 34 St. Chads Avenue, Headingley, Leeds, 6. W. A. Banks, and the President and Hon. Sec. of the West Yorks Soc. of Arch. under Bye-law 3 (a).

**Reagle: Edmund**, c/o G. E. Bright, Esq. [F], 28 Great Castle Street, W.1; 35 Gloucester Place Mews, W.1. Lieut.-General Sir John Brown, H. B. S. Gibbs, G. E. Bright.

**Redman: Edgar**, Town Hall, Lancaster; 21 Morecambe Road, Morecambe. C. E. Pearson, Frank Waddington, Thomas Duffy.

**Rosenberg: Eugene**, 35 Welbeck Street, W.1; 80 West Kensington Court, W.14. F. R. S. Yorke, Frederick Gibberd, E. M. Fry.

**Scratchley: Stanley George**, M.C., 147 Grange Road, South Norwood, S.E.25. R. F. Jordan, H. G. Goddard, L. H. Bucknell.

**Shipway: Alan Charles Tocknell**, 8-10 Katharine Street, Croydon, Surrey; 105 Park Lane, Croydon, Surrey. Ernest Bates, and the President and Hon. Sec. of the S.E.S.A. under Bye-law 3 (a).

**Smeed: Charles Alfred**, The Northmet Power Company, Northmet House, Cannon Hill, Southgate, N.14; Electric House, Station Road, Chingford, E.4. H. B. Challen, L. D. Tomlinson, E. S. Ambrose.

**Southcombe: John Richard**, Borough of Finchley, Housing and Town Planning Dept., The Avenue, Finchley, N.3; 2 Upper Cavendish Avenue, Finchley, N.3. O. F. Savege, F. W. Newman, and applying for nomination by the Council under Bye-law 3 (d).

**Spooner: Horace Alexander Fraser**, 15 Curzon Street, W.1; 72 Sydenham Park, S.E.26. A. A. Briggs, F. W. Charity, J. A. Gale.

**Sternfeldt: Sven Michael**, c/o Messrs. Sir Patrick Abercrombie and Richard Nickson, 33 Welbeck Street, W.1; Copperkins, Copperkins Lane, Amersham, Bucks. Sir Patrick Abercrombie, John Greaves, Richard Nickson.

**Stonehill: Maurice Moshe Hareven**, 87 Kilburn High Road, N.W.6; 87 St. Gabriels Road, N.W.2. Zwi Sirotkin, A. G. Alexander, W. B. Sinclair.

**Todd: Herbert Francis**, 13 Crawford Street, W.1; 334 Galpins Road, Thornton Heath, Surrey. H. L. Curtis, H. S. Goodhart-Rendel, N. D. Quick.

**Tranter: Charles William** (Major), 27 John Adam Street, Adelphi, W.C.2, and 107 Elm Grove, Southsea, Portsmouth; 22 Erica Close,

Weoley Hill, Birmingham, 29. The late W. T. Benslyn, H. W. Hobbiss, S. J. Stainton.

**Widdows: Wystan**, c/o County Architect, County Hall, Ipswich; 168 Sidegate Lane, Ipswich. E. J. Symcox, T. H. Thorpe, and applying for nomination by the Council under Bye-law 3 (d).

**Willey: Thomas Roland**, c/o Messrs. W. Dixon and Son, 1 Collingwood Street, Newcastle-on-Tyne; East Farm House, Temperley Grange, Coatbridge-on-Tyne. John Swarbrick, and applying for nomination by the Council under Bye-law 3 (d).

**Wood: Stanley Benjamin**, c/o S. H. Loweth, Esq. (F), County Architect, Kent County Council, Springfield, Maidstone; 37 Grace Avenue, Maidstone, Kent. S. H. Loweth, R. T. Green, J. G. Bennett.

**Wright: Dennett Eric**, O.B.E., Ministry of Works, Abell House, John Islip Street, S.W.1; 4 Midholm Road, Shirley. J. H. Markham, Sir Charles Mole, C. G. Mant.

#### ELECTION: 22 JUNE 1948

An election of candidates for membership will take place on 22 June 1948. The names and addresses of the overseas candidates, with the names of their proposers, are herewith published for the information of members. Notice of any objection or any other communication respecting them must be sent to the Secretary, R.I.B.A., not later than Saturday 22 May 1948.

The names following the applicant's address are those of his proposers.

#### AS FELLOWS (2)

**Moline: Geoffrey Lewis** [A 1937], 16 Barrack Street, Sydney, New South Wales; 374 Little Collins Street, Melbourne, Victoria; 34 Warren Road, Edgecliffe, New South Wales. A. G. Stephenson, Prof. Leslie Wilkinson, J. C. Fowell.

And the following Licentiate who has passed the qualifying Examination:

**Lester: Peter Frank**, P.W.D., Khartoum, Sudan; Greenbank, Chagford, Devon. G. B. Bridgman, W. G. Newton, G. D. G. Hake.

#### AS ASSOCIATES (6)

The name of a school, or schools, after a candidate's name indicates the passing of a recognized course.

**Bordoli: Maurice Roy** [Final], c/o Messrs. Blackburne and Norburn, Kenwood House, P.O. Box 890, Nairobi, Kenya. G. A. Cope, A. F. Bryan, F. Chippindale.

**Fooks: Dr. Ernest Leslie** (Passed a qualifying Exam. approved by the R.A.I.A.), 'Leith', Southey Court, Elwood, S.3, Victoria, Australia. J. F. D. Scarborough, L. M. Perrott, C. E. Serpell.

**Mealand: Alfred** (Passed a qualifying Exam. approved by the R.A.I.A.), Brisbane City Council, Brisbane, Queensland, Australia. J. F. D. Scarborough, Leighton Irwin, E. P. Trewhern.

**Ricketts: Neal Bruce** (Passed a qualifying Exam. approved by the R.A.I.A.), 54 Forster Street, New Town, Tasmania. Applying for nomination by the Council under Bye-law 3 (d).

**Saksena: Urmila Eulie** (Miss) (Passed a qualifying Exam. approved by the R.A.I.A.), c/o R. R. Saksena, Esq., Joint Secretary, Ministry of Foreign Affairs, Secretariat, New Delhi, India. Prof. Leslie Wilkinson, Prof. A. S. Hook, W. R. Richardson.

**Wilson: Robert Gray Boone** [Special Final], P.O. Box 449, Bulawayo, Southern Rhodesia. J. R. Hobson, I. D. MacGillivray, F. A. Jaffray.

## Members' Column

*This column is reserved for notices of changes of address, partnership and partnerships vacant, or wanted, practices for sale or wanted, office accommodation, and personal notices other than for posts wanted as salaried assistants for which the Institute's Employment Register is maintained*

### APPOINTMENTS

**Mr. Harry D. Dodd [L]** has been appointed Schools Architect to the County Borough of Southport and will be pleased to receive trade catalogues addressed to him as 'Schools Architect', County Borough of Southport, Town Hall, Southport, Lancs.

**Mr. A. N. Harris [F]**, Deputy County Architect to the Northamptonshire County Council, has been appointed County Architect to that authority in succession to Mr. J. Perkins [F] who is retiring.

**Mr. J. Roy McKee [A]** has been appointed Planning Officer to the Department of Health for Scotland, and will take up duty on 1 March.

**Mr. John Nicholls [A]** has been appointed Senior Architect (Education) in the County Architect's Department, Lancashire County Council.

### PRACTICES AND PARTNERSHIPS

**Mr. Kenneth Anns [L]** whose reopening of practice at 1, Lincoln's Inn Fields, W.C.2 was announced in the January JOURNAL was incorrectly described as Mr. Kenneth 'Anne'. His telephone number is Holborn 3031.

**Mr. C. J. Cable [F]** has taken **Mr. F. R. Pite [A]** into partnership as from 1 January 1948, and they will practise under the style of **Cable and Pite** at South Park, Sevenoaks, Kent (Sevenoaks 2413).

**Mr. Alec F. French [F]** of Halifax House, Bristol 1 and Westminster Bank Chambers, Plymouth, has acquired the practice of the late **Harold E. Meredith [F]** of Cleeve Lawns, Downend, Bristol (successor to Richard C. James and Meredith).

On the retirement of **Mr. J. H. Hollier [F]** from the practice of **Mowbray Green and Hollier** at 27, Queen Square, Bath, **Mr. F. W. Beresford Smith [A]** is joining **Mr. J. E. B. Carpenter [A]** in partnership and they will practise as **Mowbray Green and Partners** from the same address, 27 Queen Square, Bath (Bath 3161).

**Messrs. Lawrence Farman and Partners [F/A]** have now acquired offices at 258, Upper Richmond Road, Barnes, London, S.W.14 (Prospect 1924).

**Mr. E. D. Jefferiss Mathews, O.B.E. [F]** and **Mr. Oswald D. Pearce [F]** took **Mr. A. G. Nisbet [A]** into partnership on 1 January 1948. Mr. Nisbet has been their Chief Assistant for the past 10 years, and the practice will continue at 3 Ebury Street, Victoria, London, S.W.1 (Victoria 6223) under the style of **J. Douglass Mathews and Partners**.

**Messrs. Mayell, Webb and Cardwell (F/L/A)**, St. James' House, 173 Holland Park Avenue, London, W.11, announce the dissolution of their partnership with **Mr. Cardwell**, who is now in practice on his own, and they have taken into partnership **Mr. C. A. Hart [A]** under the title of **Mayell, Webb and Hart**, with a branch office at 22, Church Road, Tunbridge Wells.

**Mr. R. K. Lewis [A]** has now opened an office for the Birmingham Co-operative Society Ltd., at Woodcock Street, Birmingham 4, where he will be pleased to receive trade catalogues, etc.

**Messrs. Talbot Brown, Panter and Partners [F/L]**, formerly known as Talbot Brown and Fisher, were incorrectly described on page 92, December 1947 JOURNAL. The last of their title names is, of course, in the plural, viz. 'Partners'.

**Mr. Stavers H. Tiltman [F]** of 38 East Street, Brighton 1 (Brighton 4717) has taken **Mr. F. Foster Howard [F]** into partnership, and they will practise under the style of **Tiltman and Howard**.

**Aileen and William Tatton Brown [A/A]** are now in practice at 57, Lansdowne Road, London, W.11 (Park 9324) where they will be pleased to receive trade catalogues, etc.

### CHANGES OF ADDRESS

**Mr. A. J. Ardin [A]** has removed from 42 Brook Street, London, W.1, to 38 Upper Grosvenor Street, London, W.1.

**Mr. J. Armstrong [A]** has removed from Bowden to 'Roughleigh', Park Road, Hale, Cheshire, to which all future communications should be addressed.

**Mr. Horace Cubitt [F]** formerly of 139, Cannon Street, and 20 Abchurch Lane, E.C.4, has removed to 15 St. Mary Axe, Leadenhall Street, E.C.3. His telephone number (Mansion House 4960) remains unchanged.

**Mr. A. M. Edwards [A]** who has been appointed Senior Planning Assistant to the Essex County Council at 1 Wellesley Road, Colchester, Essex, announces his new private address as 93 Lexden Road, Colchester, to which communications should be sent.

**Mr. Colin William Glendinning [L]** announces his new address as P.O. Box No. 137, Public Works Dept., Lusaka, Northern Rhodesia.

**Mr. Sidney C. Halbritter [A]** has moved from 91b Albert Bridge Road, London, S.W.11, to 67, Ravenslea Road, Wandsworth Common, London, S.W.12.

**Mr. W. J. Horton [L]**, who is Assistant Architect to the Chesterton Rural District Council, announces his new address for communications, trade catalogues, etc., as County Hall, Hobson Street, Cambridge.

**Mr. John B. E. Moreton [A]**, formerly of 'Royal View', Llangollen, Denbighshire, is now at 'Artistry House', 15 Park Street, Calcutta, India, to which future communications should be sent.

**Mr. Stanley G. Owen [A]** has removed from 6a Springfield Road, Moseley, Birmingham 13, to 3 Madeira Street, Maryfield, Dundee, Angus (Dundee 81410).

**Mr. Mordecai Pearlman [A]** has removed from 27 Circus Road, St. John's Wood, N.W.8, to 44 Catherine Place, London, S.W.1 (Victoria 4304/5).

**Messrs. Ryan and Partners [A/A/A]** have ceased to practise at 63 Abingdon Villas, London, W.1. Until new offices are established all future correspondence should be forwarded to 98 Eaton Terrace, London, S.W.1 (Sloane 2757).

### WANTED AND FOR SALE

Wanted by Associate. Copy of 'Architectura. Practice and Procedure', by Hamilton H. Turner; latest edition. Reply Box 126, c/o Secretary, R.I.B.A.

Wanted by London member. Six-drawer plan chest, also double elephant drawing board and T-square. Reply Box 128, c/o Secretary, R.I.B.A.

Wanted. Bound or unbound copies of 'Architectural Review' for 1937, 1938 and 1939. Reply to Professor W. B. Edwards [F] School of Architecture, King's College, Newcastle-upon-Tyne 1.

Wanted. Double Elephant Plan Chest, oak or stained, six-drawer, preferably antiquarian size, 3 ft. by 4 ft. 10 in. by 2 ft. 8 in. high. Reply Box 120, c/o Secretary, R.I.B.A.

Wanted. 'Monumental Classic Architecture in Great Britain and Ireland During the 18th and 19th Centuries', by Professor A. E. Richardson. Reply Box 127, c/o Secretary, R.I.B.A.

Wanted. Plan Chest, 30 in. by 22 in. or less. Reply Box 124, c/o Secretary, R.I.B.A.

Wanted. Plan Chest in good condition. Double elephant preferred. Six drawers. Reply Box 122, c/o Secretary, R.I.B.A.

For sale. New chrome plated needle-pointed set of drawing instruments of best German manufacture, comprising dividers (spring and ordinary), two drawing pens, pen and pencil bows (large and medium size), etc., in velvet-lined case. Reply Box 125, c/o Secretary, R.I.B.A.

For sale. Theodolite, four-screw, Y type in mahogany box. Reply Box 121, c/o Secretary, R.I.B.A.

### PRACTICES AND PARTNERSHIPS WANTED

Associate (39) with varied experience of general practice seeks partnership or position with view to partnership in busy firm, London or northern outskirts of London. Reply Box 129, c/o Secretary, R.I.B.A.

### ACCOMMODATION

Two members require drawing office with two smaller rooms adjoining, in the Sloane Square, Knightsbridge or South Kensington area. Willing to share office if suitable accommodation provided. Reply Box 123, c/o Secretary, R.I.B.A.

## "A.B.S"

### Non-Cancellable Sickness and Accident Policy

PROVIDES AN INCOME continuing during Total Disablement

By any Sickness.

By any Accident.

Of any duration.

*This Policy cannot be cancelled by the Company before age 65, no matter how severe the claims experience may be. Particulars from:*

The Secretary,

A.B.S., Insurance Department,  
66 Portland Place, W.1.

(WELbeck 5721.)



i-  
9.  
ol  
e-  
or  
an  
ly

in  
nd  
on.  
ess.

ble  
22,  
ated  
man  
and  
encil  
vet-  
ary,

e in  
tary,

neral  
with  
on or  
129,

h two  
quare.  
Wili-  
dation  
retary,

ESS

by the  
ter how  
may be.

ent,  
.1.

JOURNAL